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**Measuring Respondents' Perceptions of Burden
in the American Community Survey (ACS)**

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Abstract

Minimizing respondent survey burden may help decrease nonresponse and increase data quality, but the measurement of burden has varied widely. Recent efforts have paid more attention to respondents' subjective perceptions of burden, measured through the addition of questions to a survey. Despite reliance on these questions as key measures, little qualitative research has been conducted for household surveys. We conducted a literature review, focus groups, and cognitive interviews to examine possible sources of burden in the American Community Survey (ACS) such as survey length, sensitivity, and contact strategy; respondents' knowledge, attitudes, and beliefs about burden; and overall perceptions of burden. Generally, respondents did not find the ACS to be burdensome in either the focus groups or cognitive interviews. When deciding whether it was burdensome, respondents thought about the process of responding to the questionnaire, the value of the data, that response is mandatory, and to a lesser extent, the contacts they received, suggesting these constructs are key components of burden in the ACS. There were some differences by response mode and household characteristics. Questions on perceptions of burden generally performed well in cognitive testing, but we recommend field testing a short series of optional burden questions on the ACS about response length, overall burden, effort, and privacy. If added to the ACS, questions on perceived burden would allow the Census Bureau to track trends in burden over time, look at differences in perceptions by respondent subgroups, and examine effects of experimental treatments on burden.

Keywords: subjective burden; burden measurement; household surveys; American Community Survey

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1 EXECUTIVE SUMMARY

This report presents findings from research conducted to explore respondent burden and develop measures of perceived respondent burden in the American Community Survey (ACS). If added to the ACS, questions on perceived burden would allow the Census Bureau to track trends in burden over time, look at differences in perceptions by respondent subgroups, and examine effects of experimental treatments on burden. Researchers conducted a literature review, 10 focus groups, and 62 cognitive interviews between fall 2016 and summer 2018. This research was guided by four overarching research questions:

1. What are respondents' overall level of perceived burden in being contacted for and responding to the ACS?
2. Which features of the ACS contribute to or affect respondents' level of perceived burden and how much does each of these survey features contribute to respondents' perceived burden?
3. What survey questions can accurately assess respondents' perceived level of burden?
4. Which respondent and household-level characteristics, if any, contribute to variation in respondents' perceived level of burden?

The literature review informed what features of perceived burden would be explored in the focus group phase of the research. Focus groups were conducted with prior ACS respondents to elicit feedback on their experience with the ACS and to identify which survey and respondent characteristics contributed to their perceptions of survey burden. In particular, we concentrated on features of the questionnaire, contact strategy, and respondents' demographic characteristics and attitudes. During the focus groups, we also collected preliminary feedback on existing survey questions used to measure perceptions of burden, primarily from the Consumer Expenditure Survey (CE). In our focus groups, ACS respondents indicated that they did not perceive the survey to be burdensome. When deciding whether the ACS was burdensome, focus group participants tended to think about a) the process of responding to the survey itself, b) the value of the data, c) that response is mandatory, d) and to a lesser extent, the number of contacts they received. There were some differences regarding how participants viewed their ACS experience based on characteristics such as response mode and household composition. They did not have many suggestions on how the ACS could be made less burdensome.

Based on the findings of the focus groups, we selected and tested questions for two rounds of cognitive testing with both prior ACS respondents and new respondents recruited to represent people from the broader potential survey population. In the first round of cognitive interviews we tested questions on 1) overall perceived burden, 2) length of survey response, 3) whether length of survey response met participants' expectations, 4) difficulty answering ACS questions, 5) level of effort put forth in responding to the ACS, 6) perceptions of whether the ACS invaded their privacy, 7) number of contact attempts, and 8) whether they viewed the contact attempts they received as appropriate. We tested two different versions of the overall burden question; one version of the question used the word "burdensome" and the other version used the word

“hassle.” After the first round of testing, we selected the questions that performed best in terms of question comprehension and whether they captured salient aspects of burden in the ACS. In the second round, we retained and modified the questions on 1) length of survey response, 2) overall burden (both versions), 3) level of effort, and 4) perceptions of whether the ACS invaded their privacy for further testing. All these questions performed well, as respondents understood them as intended and were able to provide an answer. We recommend field testing the following questions before making a decision about whether they should be implemented on the ACS as optional, follow-on questions at the end of the survey.

“Please indicate how much time it took you to complete this survey, not counting interruptions.

_____ minutes”

“How burdensome was the American Community Survey for you?

- Not at all burdensome*
- A little burdensome*
- Somewhat burdensome*
- Very burdensome”*

“How much effort did it take to answer the American Community Survey?

- No effort*
- A little bit of effort*
- A moderate amount of effort*
- A lot of effort”*

“Would you say that the American Community Survey invades, or does not invade your privacy?

- Invades my privacy (GO TO A)*
- Does not invade my privacy (END)*

A. Would you say it is a little invasive, somewhat invasive, or very invasive?

- A little invasive*
- Somewhat invasive*
- Very invasive”*

Figure 1. Final Recommended Burden Questions for Field Testing

2 INTRODUCTION

2.1 Motivation

After the 2000 Census, the Census Bureau eliminated the long-form version of the census and replaced it with the American Community Survey (ACS). The ACS was fully implemented in 2005, and since then has served as the premier source for detailed population and housing information about our nation, producing estimates on over 35 demographic, social, economic, and housing topics (U.S. Census Bureau 2018). ACS data are also used by the federal government to help allocate over 675 billion dollars to local communities (Hotchkiss and Phelan 2017).

The Census Bureau is committed to learning more about respondents' experiences with the ACS. Over the last several years, a relatively small number of respondents concerned about the burden of the ACS have "generate[d] a small but continuous stream of complaints to members of Congress" (Plewes 2016). While the number of complaints has been very small relative to sample size of the ACS, the Census Bureau wants to be responsive to these respondent concerns. As a result, the Census Bureau developed an "Agility in Action" plan outlining areas of research to reduce respondent burden while maintaining data quality (U.S. Census Bureau 2015, 2016, 2017a, 2017b, 2018a, 2020). The National Academies of Science Committee for National Statistics (CNSTAT) also convened a Workshop on Respondent Burden in the ACS in March 2016 (Plewes 2016). Some of the efforts thus far to reduce the burden of the ACS for respondents have included reducing the number of interviewer contact attempts and leveraging alternative data sources to allow for the removal of questions from the survey (e.g., Griffin 2013; Griffin and Hughes 2013; Zelenak and Davis 2013; Griffin 2014; Zelenak 2014; Griffin and Nelson 2014; Griffin, Slud, and Erdman 2015; Hughes et al. 2016; Heimel, Barth, and Rabe 2016). This work primarily focused on making changes to features of the survey assumed to be burdensome while ensuring data quality is maintained. However, it is unclear if these changes have reduced how burdensome respondents *perceive* participation in the ACS to be, and if these perceptions differ by respondent or household characteristics.

In this report, we describe research conducted by the Center for Behavioral Science Methods (CBSM) to develop measures of respondents' perceptions of burden in the ACS. Our goal was to recommend a series of questions that may be field tested and eventually implemented on the ACS as optional, follow-on questions. Development was guided by four overarching research questions:

1. What are respondents' overall level of perceived burden in being contacted for and responding to the ACS?
2. Which features of the ACS contribute to or affect respondents' level of perceived burden? How much does each of these survey features contribute to respondents' perceived burden?
3. What survey questions can accurately assess respondents' perceived level of burden?
4. Which respondent and household-level characteristics contribute to variation in respondents' perceived level of burden?

Question development was conducted in three phases, including a literature review, focus groups, and cognitive interviews. The literature review was conducted first to inform what ACS features would be explored in focus groups and cognitive interviews. The focus groups were then conducted with prior ACS respondents to receive feedback on their experience with the ACS and identify features that contributed to their perceptions of survey burden. Preliminary, exploratory feedback was also collected on existing survey questions used to measure perceptions of burden during the focus groups, most of which were from the Consumer Expenditure Survey (CE). Based on the findings of the focus groups, we selected features of the survey that might contribute to perceptions of burden and wrote or modified questions corresponding to these features for testing in cognitive interviews. The cognitive interviewing phase culminated in recommended questions for field testing.

In order to identify aspects of the ACS that could be potentially burdensome for respondents, it is important to understand the methodology of the survey. In this report, we first provide a high-level overview of ACS methodology, and then present findings from all phases of the research.

2.2 ACS Methodology

The ACS is a large, cross-sectional, federal survey, sampling approximately 3.5 million addresses annually, or about 290,000 addresses each month. Response to the ACS is required by law (Title 13, U.S. Code, Sections 141, 193, and 221). All mailable¹ sampled addresses receive at least two pieces of mail that ask a respondent to complete the survey on behalf of the household. The sooner an ACS recipient responds, the fewer mailings their address receives. In the first two mailings, sampled addresses are asked to self-respond online. If no internet self-response is received, sampled addresses are provided a paper questionnaire in a third mailing and are sent a reminder in a fourth mailing. A fifth reminder mailing is then sent to sampled addresses that have not yet responded online or on paper. A paper questionnaire is only sent in the third mailing.

After these mailings are sent, the Census Bureau uses field representatives (FRs) to conduct nonresponse followup interviews with a subsample of the addresses from which a self-response has not been received. At the time this research began, the Census Bureau obtained telephone numbers for addresses from which no response was received so that interviewers could first call and attempt to complete the ACS by computer-assisted telephone interview (CATI). A subsample of addresses for which a response by internet, paper, or CATI was not received were then selected for computer-assisted personal interview (CAPI) follow-up. Respondents could still self-respond online or by paper during these latter phases of data collection. As of October 2017, based on a cost-benefit analysis, the ACS no longer uses CATI response; instead, nonresponse followup is conducted with a subsample of nonresponding addresses by CAPI only (U.S. Census Bureau 2017b).² Since response modes are offered sequentially, respondents who complete the

¹ Mailable addresses are those that meet certain United States Post Office standards for mail delivery (see <https://pe.usps.com/cpim/ftp/pubs/pub28/pub28.pdf> for more information). Unmailable addresses begin with in-person data collection.

² However, interviewers can still collect ACS responses over the phone during the CAPI phase of data collection.

ACS by paper or with an interviewer receive more contacts from the Census Bureau about the survey than those who self-respond early online. For example, some internet self-respondents receive only two mailing contacts, while respondents answering in interviewer-administered modes would receive five pieces of mail, followed by one or more contact attempts from an interviewer by telephone and/or in-person.

With the exception of questions on housing, most ACS questions are asked at a person-level about all members of the household. Therefore, the amount of time spent answering the survey can vary depending on the size of the household. On average, the ACS takes 40 minutes to complete (U.S. Census Bureau 2018). More detailed information about the ACS methodology is available online (U.S. Census Bureau 2014).

3 LITERATURE REVIEW

3.1 What is Burden?

Over forty years ago, Norman Bradburn (1978) defined “respondent burden” as a multi-faceted concept that is “the product of an interaction between the nature of the task and the way it is perceived by the respondent” (p. 36; see Figure 2). The “nature of the task” includes survey characteristics such as length of the survey, the effort required to complete it, “stress on the respondent,” and the frequency of survey requests respondents receive in general (i.e., whether they are “over-surveyed”). Bradburn emphasized that there is not necessarily a uniform effect of these characteristics on burden; for example, respondents’ perception that a survey is important may mitigate the otherwise potentially negative effect of a long survey or a survey requiring a lot of effort to complete. He also stated that there may be individual variation in the effect of these features; some survey topics may be more sensitive for some respondents than for others, thus inducing different levels of respondent stress.

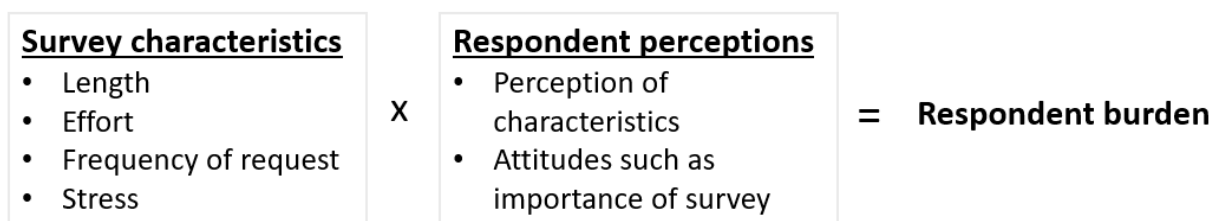


Figure 2. Bradburn (1978)

In practice, burden has been defined in a variety of ways in the years since. Objective measures of burden have received considerably more attention than subjective measures. In a report describing burden measurement in Italian surveys, Lima (2014) even asserts, “Clearly, the measurement of [subjective] burden is out of scope of official statistics” and that efforts should focus solely on objective burden (p. 83). Evaluations of objective burden have frequently relied on outcome measures such as response rates and break-offs, assuming that burdened

respondents will refuse to respond. Research on objective burden has also largely focused on one or a few characteristics of a survey, such as length. While important, this research does not provide insight into how these changes affect respondents' opinions on the survey experience from their own, subjective perspective. It is possible that these survey features could have no impact on respondents' perceptions of burden, or an impact opposite of what researchers would hypothesize. In fact, there is some evidence that there is no or only a limited relationship between objective and subjective burden (e.g., Read 2019; Kaplan and Holzberg 2019).

There has been an increase in recent efforts to measure subjective perceptions of burden, alone and in combination with objective measures. New models of burden have also been proposed, incorporating respondent characteristics such as attitudes, age, and household size into Bradburn's model (e.g., Haraldsen 2004; Hedlin et al. 2005; Fricker 2016; Read 2019; Yan and Williams 2019). However, even among researchers studying subjective burden, there remains considerable heterogeneity in how it is defined and measured (e.g., Gravem, Haraldsen, and Lofgren 2011). Findings from studies incorporating subjective burden have also been mixed. This may be explained in part by leverage-salience theory, which posits that survey features such as a survey's importance or its sponsor may affect respondents' decision to participate when the features make the benefits of participation more salient and the costs less salient (Groves, Singer, and Corning 2000). However, these features will have different leverages for different groups of respondents; not everyone will be sufficiently convinced to participate by a given survey feature. Burden may function similarly in that some features may increase the salience of survey burden for certain respondents but not others.

In the following sections, we provide an overview of the diverse existing research using objective burden measures (typically response rates), subjective burden measures, or both. We primarily organize the literature by the four components of burden originally outlined by Bradburn (length, effort, respondent stress, and over-surveying), but also include discussion of other survey features and respondent characteristics that may potentially contribute to burden. We include examples of survey questions measuring respondent perceptions from the CE, a survey providing data on consumer spending and, at the time of this research, one of the only federal surveys in the United States that has collected data on subjective perceptions of burden. Data on respondent burden were collected as part of a larger redesign project and used as an evaluation metric.³ The section concludes with a discussion on measuring burden with a single overall burden question and combining measures of burden into multi-dimensional models and indices. We conclude by summarizing how this literature informs subsequent research for the ACS.

3.2 Survey Characteristics

3.2.1 Length

Commonly, the word "burden," as it pertains to surveys, has been used synonymously with survey length, meaning the amount of time it takes respondents to complete a survey or the number of questions in a survey (Tourangeau and Plewes 2013). The Paperwork Reduction Act

³ More information on the Gemini Redesign project is available at <https://www.bls.gov/cex/geminiproject.htm>.

requires federal agencies to publicly report the “paperwork burden” a given data collection activity is expected to require of respondents, defined as the estimated number of minutes a typical respondent would need to complete the task (OPM 2011). Perhaps because of this, length has been one of the most researched components of burden. The literature on the relationship between objective length and response rates has been mixed; some studies have found a negative relationship (Heberlein and Baumgartner 1978; Yammarino, Skinner, and Childers 1991; Galesic 2006; Galesic and Bosnjak 2009) while others have found a positive relationship or no relationship at all (Bogen 1996; Cook, Heath, and Thompson 2000). A meta-analysis found that response rates tend to be lower for longer questionnaires, but the authors note that the effect size was small and survey content was confounded with length (Rolstad, Adler, and Ryden 2011). Data quality typically was not affected by survey length.

While objective length can be measured using a paperwork estimate or available paradata, subjective length can also be examined via questions about respondents’ perceptions:

*“Do you feel that the length of today’s interview was too long, too short, or about right?”
(2012 and 2013 CE)*

“Would you say that the time and effort you put into answering the survey questions was very well spent, somewhat well spent, a little well spent, or not at all well spent?” (2013 CE)

Studies examining subjective perceptions of length have been similarly mixed. Some research found that respondents who were assigned to a shorter questionnaire reported the survey to be less burdensome, with some improvements in data quality, and that perceptions of length were an important dimension of burden (Fricker et al. 2012; Yu, Fricker, and Kopp 2015; Fricker, Gonzalez, and Tan 2011; Fricker, Yan, and Tsai 2014). On the other hand, there has been evidence that length and perceptions of burden are not correlated (e.g., Kaplan and Holzberg 2019). Dahlhamer et al. (2019) found that length was a less important factor in perceptions of burden than difficulty, sensitivity, and other respondent or survey interview characteristics. Sharp and Frankel (1983) also found that while respondents assigned to a longer 75-minute interviewer-administered survey felt more negatively about the length of the survey than those who took a 25-minute survey, the two groups did not differ in data quality measures such as item nonresponse or in other broad perceptions of survey burden.

3.2.2 Effort

Burden research on respondent effort has generally focused on the difficulty of the task, including the amount of thought or consultation with outside records required in order to respond, or obstacles to responding presented by a poorly designed survey (Tourangeau and Plewes 2013). The perceived cognitive burden of the survey topic (e.g., health) may impact respondents’ decision to participate in a survey at all (Groves and Couper 1998). Respondents who do participate but find a survey to require more effort than they are willing to give may engage in undesirable behaviors such as speeding (e.g., Malhotra 2008), straightlining (e.g., Kim et al. 2019), and satisficing (Krosnick 1991).

There is a large body of survey literature on efforts to reduce the difficulty of the survey request by improving questionnaire design, including articles on:

- Refining survey instructions (e.g., Zukerberg and Lee 1997; Yu, Fricker, and Kopp 2015),
- Improving visual design (e.g., Redline et al. 2002),
- Increasing the usability of web surveys (Crawford, Couper, Lamias 2001; Haraldsen 2004; Kaczmirek 2008; Sawyer 2017),
- Clarifying question wording (Lenzner, Kaczmirek, and Lenzner 2010),
- Eliminating or reducing questionnaire topics (Eggers 2009; Chappell and Obenski 2014; Robins et al. 2016; Tortora 2017), and
- Allowing respondents to complete the survey in a preferred mode (Hedlin et al. 2005; Jones 2012), among other areas of study.

There is less research on the relationship of effort/difficulty to subjective burden, though it has been frequently discussed as a potential contributor (e.g., Hedlin et al. 2005). Galesic (2006) found that half of the variability in respondents' subjective assessments of burden in a questionnaire was explained by question characteristics that varied in effort required, such as open versus closed-ended format. Burdened respondents were also more likely to drop out of the survey.

Researchers have considered whether asking questions that require respondents to consult records increases burden because it requires more effort (Phipps 2014; Hedlin et al. 2005). Sharp and Frankel (1983) asked some of their respondents to use records when completing a survey. Those asked to consult records actually did so, but the authors did not find any evidence of this impacting burden perceptions. On the other hand, Yang (2015) found a significant association between records use (as observed by the survey interviewer) and burden perceptions. The CE has also asked questions on effort and difficulty:

“How difficult or easy was it for you to answer the questions in this survey? (Very easy, somewhat easy, somewhat difficult, very difficult)” (2012 and 2013 CE)

“Thinking about the amount of effort that you put into answering today’s survey, would you say that you put forth a lot of effort, a moderate amount of effort, or a little effort?” (2012 and 2013 CE)

The relatively little research in this area as it relates to burden may be explained by multiple factors. It seems intuitive that more difficult surveys are typically less preferable to respondents than easier surveys are, and thus would likely have higher nonresponse and/or be perceived as more burdensome. Survey sponsors usually cannot drastically alter content or remove questions in the absence of alternative data sources such as administrative records, though research on the latter issue has increased in recent years (e.g., Robins et al. 2016; Groves and Harris-Kojetin 2017a; Groves and Harris-Kojetin 2017b). Bradburn (1978) also noted that effort can correlate with length, though some longer surveys do not require much effort and vice versa. In one recent study, Kunz and Gummer (2019) examined effort and difficulty independently. Respondents

tended to rate the survey as more effortful than difficult, suggesting perhaps these actually are separate concepts. This remains an area for future research.

3.2.3 Respondent Stress

Bradburn (1978) defined respondent stress as the level of “personal discomfort” or sensitivity a respondent feels when responding to a survey. Respondents might find questions sensitive for a variety of reasons, including embarrassment about their answer, perception that a question is inappropriate, and concerns about how data will be used (Tourangeau, Rips, and Rasinski 2000). In the broader literature, questions about sex, income, and socially undesirable behaviors have been commonly considered to be sensitive. As with effort, there is a considerable amount of survey literature on identifying and minimizing the impact of sensitive questions due to their potential role in motivated misreporting (e.g., Tourangeau and Yan 2007). The Census Bureau has conducted systematic reviews of ACS questions considered to be sensitive or difficult and has considered whether they can be removed from the survey (e.g., Chappell and Obenski 2014). Cognitive testing has also been conducted to examine how the wording of sensitive questions could be improved (e.g., Robins et al. 2016). Other surveys have used techniques such as audio-computer assisted self-interviews (ACASI), randomized response techniques, “forgiving” question language, and item count techniques to minimize the impact of sensitive questions (Yan 2016). The CE has asked respondents about their perceptions of question sensitivity; however, respondent stress has received very little research attention as it pertains to subjective burden.

“How sensitive did you feel the questions I asked today were? (Very sensitive, somewhat sensitive, a little sensitive, not at all sensitive)” (2012 CE; 2013 CE)

Bradburn (1978) noted that it is hard to examine how much perceptions of sensitivity might affect nonresponse, which is one objective measure of burden. Therefore, implementing changes based on perceptions of sensitivity could be difficult. Instead, some researchers have stated that a given survey can be both difficult and sensitive but did not examine those characteristics separately (e.g., McCarthy, Beckler, and Qualey 2006). Haraldsen (2004) also added that respondent stress seemed more like “an aspect of a burdensome feeling” than a cause of burden (p. 397). In one study, Kaplan and Fricker (2017) found that perceptions of question sensitivity predicted overall perceptions of burden. Earp, Kopp, and Dixon (2019) also found that sensitivity had a consistently negative impact on response rates to CPS supplements. As with effort, this remains an area for further research.

3.2.4 Over-surveying

Researchers have echoed Bradburn’s concern that the growing prevalence of survey requests may lead to “survey fatigue” or an “over-surveying effect” (Groves and Couper 1998; Olson 2014; Leeper 2019). This effect may be particularly strong for groups that are frequently oversampled for surveys, such as demographic minorities (Leeper 2019). In the federal government alone, the number of surveys increased by 50% between 1984 and 2004 (Presser and McCulloch 2011). There has not been research demonstrating a causal relationship between general survey fatigue and burden for household surveys, likely because the operationalization of such an experiment

would be highly difficult. However, there has been research examining survey fatigue within longitudinal surveys, measured by attrition (i.e., nonresponse in a later survey wave after response in the first wave). Much of this literature is dedicated to understanding why attrition occurs and how it might be mitigated. Attrition may occur because of inability to contact a respondent, but it may also occur because of the burden of the number of interview requests or other survey features (Lepkowski and Couper 2002). In response, researchers might take actions such as tailoring the survey invitation (Tourangeau and Ye 2009), altering the survey itself (Fricker et al. 2012), or offering incentives (Laurie and Lynn 2009; Singer and Kulka 2002; Goldenberg, McGrath, and Tan 2009; Westra, Sundukchi, and Mattingly 2015).

Researchers have been particularly concerned about the effects of survey fatigue in establishment, or business, surveys (Haraldsen 2004; Giesen, Bavdaz, and Haraldsen 2011; Phipps 2014). Many establishment surveys sample some establishments with certainty because of their large influence on estimates; therefore, these establishments may receive many requests. While most evidence of survey fatigue for establishments remains anecdotal, McCarthy and Beckler (2000) generally did not find a relationship between the number of prior survey requests and establishment survey respondent attitudes towards the National Agricultural Statistics Service (NASS) in a study examining multiple measures of burden. However, responding establishments who had been contacted nine or more times said they thought it was important to respond more than establishments who had been contacted fewer times did. Another study conducted by NASS found no uniform effect of prior survey frequency on subsequent survey response for a difficult survey viewed by researchers as potentially burdensome (McCarthy, Beckler, and Qualey 2006).

For household surveys, Sharp and Frankel (1983) found no evidence of a follow-up request impacting attitudes or behavior in a two-interview study, and Read (2019) found that the burden of continued participation in a receipt scanning mobile app study was small. While there has also been discussion about the potential for an individual survey's contact strategy to contribute to burden (e.g., Hedlin et al. 2008; Giesen, Bavdaz, and Haraldsen 2011; Hughes et al. 2016; Fricker 2016), there has been little examination of this, other than a question asked on the CE:

“Thinking about the number of calls you received before each interview, would you say it was too many, or did it seem like a reasonable number?” (2013 CE)

3.2.5 Other Survey Characteristics

In addition to those laid out by Bradburn (1978), a variety of other survey characteristics may impact both objective and subjective burden. While often useful for motivating people to respond to a survey, it is less clear whether there is a relationship between use of incentives and perceived burden (Galesic 2006; Hedlin et al. 2005; Lee and Knappenberger 2019). Other survey characteristics that may contribute to perceived burden include the survey sponsor (Jones 2012), the perceived legitimacy of the request (Dale et al. 2007), mandatory response (Phipps 2014), survey mode (Yan, Fricker, and Tsai 2016), use of proxy response (Kaplan and Holzberg 2019), and whether the survey request is sent at a convenient or inconvenient time for respondents (Hedlin et al. 2005). However, the literature on these survey characteristics is fairly limited.

3.3 Respondent Characteristics

As is the case with survey characteristics, a number of respondent characteristics have been proposed as potential predictors of burden. Leverage-salience theory posits that survey features may have different impacts on various subgroups' survey participation (Groves, Singer, and Corning, 2000). This may also be the case for respondent burden. Respondent characteristics that may play a role in burden include demographic and household characteristics such as age, education, and household size, respondent knowledge and attitudes, and interest in the subject matter of a survey.

3.3.1 Demographics

It is well known that some demographic groups of respondents are harder to reach and interview than others, raising concerns for researchers worried about response rates and nonresponse bias (e.g. Tourangeau et al. 2014). While there is literature on improving response among certain groups and minimizing nonresponse bias (e.g., Tourangeau et al. 2014), there has been less research on the interaction between respondent demographics and perceptions of burden.

As with many other components of burden, what limited literature exists seems to be somewhat mixed. Sharp and Frankel (1983) and Fricker, Gonzalez, and Tan (2011) found little evidence overall of significant differences in perceptions of burden by respondent demographics. On the other hand, Galesic (2016) and Kaplan and Fricker (2017) found that sex predicted perceptions of burden, with male respondents having higher perceptions of burden. Earp, Kopp, and Dixon (2019) found that education, disability status, and presence of a child in the household consistently affected factor loadings in an exploratory factor analysis on burden. One study using data from the CE found that household size was collinear with other predictors in a burden model and thus excluded it from analysis (Yang 2015).

3.3.2 Knowledge, Attitudes, and Interest

Respondents' knowledge of and attitudes towards a survey may impact their decision to participate in that survey. DeMaio (1980) found that the two most common reasons for refusing to participate in the Current Population Survey (as reported by survey interviewers) were privacy concerns and prior survey experience, suggesting knowledge and attitudes may play a role. However, this is a relatively unstudied area because of the difficulties associated with re-contacting nonrespondents to find out why they did not participate; instead, many studies have conducted evaluations of nonresponse bias to make sure differential rates of participation by subgroups do not affect estimates (Groves 2006).

Knowledge and attitudes may also impact perceptions of its burden. Knowledge and attitudes may be preconceived and "insulate the sample member from processing new information about a specific survey" or they can be "quickly formed based on an impression of a specific [survey] request" (Tourangeau and Plewes 2013, p. 64). Specific factors identified by researchers as potentially contributing to burden include understanding of the survey's purpose, perceptions of the survey's usefulness, motivation, and general attitudes towards the government or about

privacy (Fricker 2016; McCarthy and Beckler 2000; Hedlin et al. 2005; Tortora 2017; Wenemark et al. 2010; Jones 2012; Yan, Fricker, and Tsai 2016).

There have been a few studies examining the role of general attitudes in perceptions of burden. Sharp and Frankel (1983) found that respondents who agreed that surveys are beneficial were willing to be reinterviewed at similar rates regardless of assignment to a less or more burdensome experimental condition. They also found that respondents who held attitudes about surveys being “too personal” had higher burden perceptions. Similarly, in a 1979 study, Jones et al. found that farmers and ranchers “who are convinced that surveys produce useful and accurate information that serves primarily their own economic interest tend not to feel burdened by even large numbers of surveys. Those who are not so convinced are likely to feel that even one survey request is too many” (p. 69). In a qualitative study, respondents said that the perceived uselessness of survey questions is a component of burden (Yu et al. 2015). The CE has also asked attitudinal questions of respondents:

“I see why it was necessary to collect this information. (Strongly agree, agree, neither agree nor disagree, disagree, strongly disagree)” (2013 CE)

“I trust the U.S. Census Bureau to safeguard the information that I have provided them.” (2012 and 2013 CE)

Haraldsen (2004) argued that respondents’ interest is an even more important area of study than other types of attitudes because it is something that surveys may be able to manipulate. One way in which this might be accomplished is in how the survey request is framed to respondents. Interest in the topic of a survey may be a factor in some respondents’ decision to participate in a survey, though the evidence is mixed (Groves, Presser, Dipko 2004; Tourangeau et al. 2009). Interest may also play a role in respondents’ willingness to continue with a survey (Galesic 2006).

In terms of its effects on subjective burden, there is some evidence that interest significantly predicts overall perceptions of burden (Fricker, Gonzalez, and Tan 2011; Fricker, Kreisler, and Tan 2012; Kaplan and Fricker 2017). In an exploratory factor analysis, Earp, Dixon, and Kopp (2019) found that the topic of a Current Population Survey (CPS) supplement impacted factor loadings. The CE has also asked respondents about their interest in the survey:

“How interesting was this survey to you? (Very interesting, somewhat interesting, a little interesting, not at all interesting)” (2012 and 2013 CE)

3.4 Multidimensional Models and Overall Burden

3.4.1 Multidimensional Models

Given the number and diversity of survey and respondent characteristics that may contribute to perceptions of burden, some researchers have built on the original model put forth by Bradburn (1978). Most models account for both objective and subjective measures of burden and both

survey and respondent characteristics. Yan and Williams (2019) discussed a few of the most common models, which are also briefly summarized in this section. Overall, researchers agree that a variety of factors may influence respondents' perceptions of burden. The effect of any one of these factors may be difficult to tease out depending on the model.

Haraldsen (2004) argued that both the survey and the respondent influence subjective burden, which then affect data quality (see Figure 3). He identified respondents' competence in answering the questions, interest in the topic, and availability to invest time into responding as three respondent characteristics influencing burden. Yan, Fricker, and Tsai (2016, 2020) similarly argued that perceptions of the survey can serve as an intermediate variable in their proposed path model (see Figure 4). In their model, motivation, task difficulty, and features of the survey request both directly and indirectly impact burden.

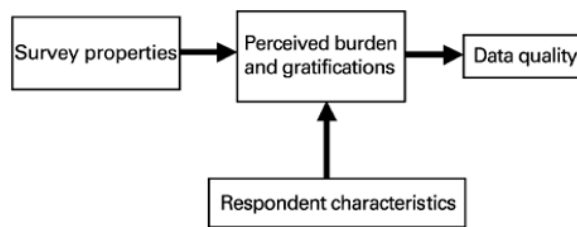


Figure 3. Haraldsen (2004)

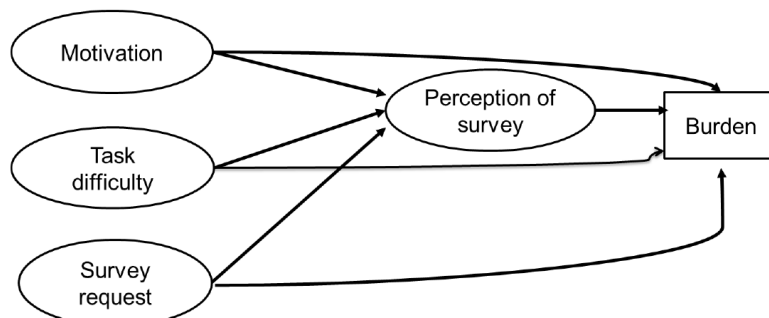


Figure 4. Yan, Fricker, and Tsai (2020)

The total business survey burden model (Jones et al. 2005; Dale et al. 2007) steps back a bit further than these other models. In this model, the organization and its stakeholders impact choices about survey design, which then impact the context in which the respondent is answering, as well as response quality. Respondent characteristics also play a role (see Figure 5).

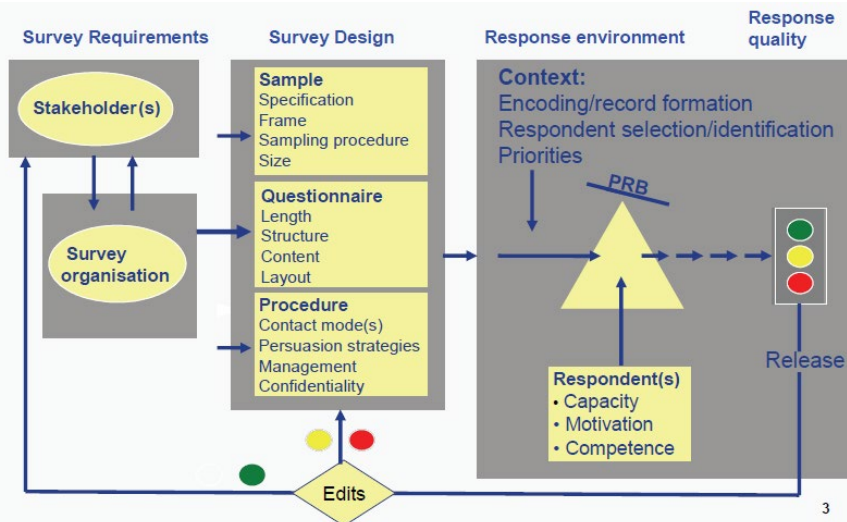


Figure 5. Dale et al. (2007)

Two recent models have also accounted for the fact that burden may change over time. Read (2019) combined the four factors from Bradburn's model with the three factors identified by Haraldsen (2004) (competence/ability, interest/motivation, and availability/opportunity) and also examined both cumulative objective and subjective burden. Yan and Williams (2019) developed a model that distinguishes between initial, cumulative, and continuous burden. In this model, respondent characteristics moderate or mediate burden and survey characteristics contribute to burden in each of the three stages (see Figure 6).

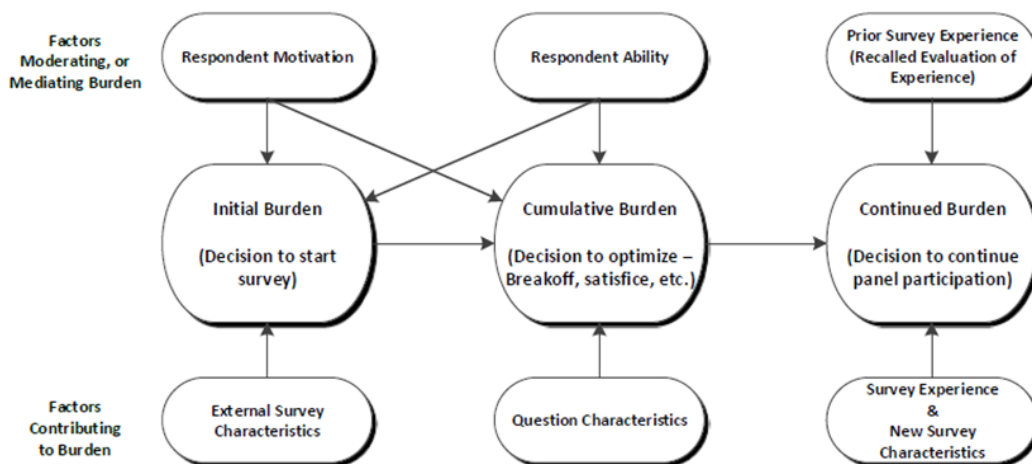


Figure 6. Yan and Williams (2019)

Finally, a number of exploratory studies have also examined the relationship between different measures of burden. Some of the most sophisticated models have used the series of burden questions on the CE (e.g., Earp, Fricker, and Dixon 2015; Yang 2015). For example, Fricker, Kreisler, and Tan (2012) used a partial least squares path model including length and perceived

length, household size, interest, and perceptions of contact attempts, among other measures, to develop an overall burden score. Fricker, Gonzalez, and Tan (2011) used recursive partitioning to examine the importance of measures of length, interest, difficulty, number of interviews and phone calls, and overall burden, finding length and interest to be two of the most important factors. Generally, including subjective perceptions of burden has improved model fit over using objective measures alone (Yu, Fricker, and Kopp 2015; Fricker, Yan, and Tsai 2014; Fricker 2016).

3.4.2 Overall Burden

Some researchers have explored using an overall subjective burden question in addition to or in lieu of more detailed models or measures. The CE has asked:

“How burdensome was this survey to you? (Very burdensome, somewhat burdensome, a little burdensome, not at all burdensome)” (2012 and 2013 CE)

There is some evidence that using a single measure of overall burden may be sufficient, as responses to the question correlate with other measures of reluctance (Galesic 2006; Yang 2015; Yan, Fricker, Tsai 2016). Therefore, while it may be useful to ask respondents a series of questions about their perceptions of survey burden, it may not be necessary. This approach is also beneficial in that it does not require researchers to tease out individual effects of respondent and survey characteristics and it does not add a lot of time to a survey, therefore avoiding the possibility of increasing the burden of a survey by asking questions about burden. However, there has been only minimal pretesting of an overall burden question using the word “burdensome.” This may be a high register word for some household respondents.

In a field test comparison of the current National Health Interview Survey (NHIS) questionnaire to a shortened, redesigned questionnaire, responses to an overall burden question differed significantly by condition (Dahlhamer et al. 2019). The percentage of respondents reporting that the survey was “not at all burdensome” was 10% higher in the redesign condition.

3.5 Conclusion

Research supports Bradburn’s (1978) definition of burden as a multidimensional concept, likely to be affected by both survey and respondent characteristics. However, until relatively recently, burden research has largely focused on objective measures. Existing studies on the impact of survey features and respondent characteristics on subjective perceptions of burden are somewhat mixed. Based upon the literature review, and with the multidimensional models in mind, we compiled features of the ACS and respondent characteristics that we expected could contribute to perceptions of burden and thus warranted further research, particularly:

1. Over-surveying, as defined by frequency of survey requests both generally and for the ACS
2. Mandatory response to the ACS, as required by law
3. Length of the ACS
4. Question difficulty and effort required to respond

5. Question sensitivity
6. Response mode
7. Respondent demographics such as household size
8. Knowledge, interest, and attitudes

In the next phase of the research, we conducted focus groups with prior ACS respondents, concentrating on these themes as well as overall perceptions of burden during the discussion.

4 FOCUS GROUPS

4.1 Methodology

4.1.1 Focus Group Design

Following the literature review, we conducted ten focus groups with 46 recent ACS respondents to learn about their perceptions of the ACS and its burden. Focus groups were conducted by two experienced moderators from CBSM, who were trained on the moderator's guide before the first focus group. Each focus group participant received \$75. Focus groups were held in spring 2017 and ranged in size from three to eight participants. We conducted five large groups (five to eight participants) and five small groups (three to four participants).⁴ Focus groups were held across three cities. Participants in these focus groups had previously responded to the ACS in the months immediately preceding the groups.

Because of the sequential data collection mode strategy, many ACS respondents who self-respond do so earlier in the data collection period and therefore may be more eager to respond to the ACS. ACS respondents who complete the survey with an interviewer respond later (i.e., after multiple contacts) and therefore may generally be more reluctant to respond. It is possible this reluctance to participate may be related to respondents' perceptions of burden of the ACS. In order to ensure both perspectives were captured, we separated the focus groups by response mode. Five of the ten groups were with those who self-responded (on the internet or paper), and five were with those who responded in an interviewer-administered mode (by CATI or CAPI). Within each group, we aimed to recruit participants who responded in both modes (i.e., self-response groups had both paper respondents and internet respondents while interviewer-administered groups had both CATI and CAPI respondents; see Table 1). In the analysis, we use the two groups (self-response and interviewer-administered response) as a proxy for early/eager responders and later/less eager responders.

⁴ Variation in the size of the focus groups was by design as part of separate methodological research exploring smaller versus larger focus groups that is not discussed in this report.

Table 1. Number of Focus Group Respondents by Mode

Mode	Number of Respondents
Self-response	
Paper	9
Internet	17
Interviewer-administered response	
CATI	7
CAPI	13
Total	46

4.1.2 Recruitment

In order to recruit prior ACS respondents for the focus groups, we first obtained a list of recent ACS respondents in the three cities and surrounding metropolitan areas. All potential focus group participants were recruited by telephone by interviewers in the Census Bureau’s Hagerstown Contact Center (HCC). Recruitment primarily focused on mode of response. We did not set targets for demographics of focus group participants because full ACS response data was not available at the time of recruitment. Instead, we collected demographic information during the focus groups.

4.1.3 Focus Group Participants

Across all focus groups, participants were fairly balanced on sex, race (white v. nonwhite), education (less than Bachelor’s degree v. Bachelor’s degree or higher), and age (younger than 45 v. older than 45; see Table 2). Most of the participants lived in 1-2 person households. The demographics of participants also differed between the self-response and interviewer-administered groups. Compared to interviewer-administered participants, self-response participants were older and had higher levels of education. More were white, male, and lived in 3-4 person households. Response mode differences for race, education, and age align with those typically observed in the ACS (Joshipura 2008; Nichols, Horwitz, and Tancreto 2015).

Table 2. Respondent Demographic Characteristics by Mode⁵

Respondent Characteristic	Self-Response (n = 26)	Interviewer- Administered Response (n = 20)	Total (n = 46)
Household Size			
1	6	11	17
2	9	3	12
3	7	2	9
4+	4	4	8
Sex			
Male	16	9	25
Female	10	11	21
Age⁶			
18-29	5	1	6
30-44	4	7	11
45-60	8	8	16
Over 60	9	3	12
Race⁷			
White	16	4	20
Black or African American	8	14	22
Other	2	1	3
Education			
High school degree or less	3	6	9
Some college, no degree	3	4	7
Associate's degree (AA/AS)	3	2	5
Bachelor's degree (BA/BS)	9	5	14
Post-bachelor's degree	8	3	11

4.1.4 Data Collection

Upon arrival to the focus groups, all participants completed a short handout with demographic questions and were provided with a consent form. Participants were also told that information they provided would be confidential, that the group would be video- and audio-recorded, and that observers were present, when applicable. After participants signed the consent forms, focus group moderators began by introducing the topic, setting ground rules for the discussion, and facilitating introductions of participants to each other and to the moderator. Participants were told that these focus groups were being conducted to learn more about people's survey experiences.

⁵ Demographic information shown was provided by participants during the focus group.

⁶ One participant did not answer this question.

⁷ One participant identified as more than one race and is not included in this table.

The remainder of the focus group moderator's guide (see Appendix 8.1) was developed to elicit feedback from participants about their experiences with surveys and with the ACS, as well as to probe specifically on features of the ACS people may find burdensome. This was based on survey features identified as potentially contributing to burden in the literature review. Probes within each section of the moderator's guide started very general and then grew increasingly specific. We also asked participants to answer burden survey questions about the ACS, most of which were adapted from the CE. Focus group moderators spontaneously added probes from the guide as needed to encourage discussion and elicit feedback from participants. Results from the first two focus groups conducted were used to inform minor changes to the moderator's guide for subsequent groups.

4.1.5 Analysis

Following data collection, participants' answers to the burden survey questions were tabulated. The focus groups were transcribed, with the exception of the introduction, off-topic comments, and moderator probes, which were generally summarized rather than transcribed. Personally identifiable information (PII) such as names were not included in the transcriptions; participants were referred to using assigned ID numbers instead. Transcripts were reviewed for recurring themes and patterns across focus groups and by focus group type (self-response v. interviewer-administered response). We also analyzed the transcripts for evidence of respondent or household-level characteristics that may have influenced responses. We then created a summary document organized by sections of the focus group moderator's guide that compiled these results. The summary document formed the basis of the focus group results.

4.2 Findings

4.2.1 General Survey Experiences

After the introduction, we began the group discussion by asking participants about their experience with surveys other than the ACS. This general introductory section allowed us to warm up focus group participants and to learn whether the frequency of survey requests affected participants' perceptions of burden. We also asked participants how frequently they are asked to respond to surveys, whether they respond to all survey requests, and what they think happens to their answers after they respond.

The majority of our focus group participants had taken surveys other than the ACS in the past, though there were a small number of participants across the groups who said the ACS was the first survey they had taken. Those who reported not having very much experience with surveys were mostly, but not exclusively, participants in the interviewer-administered response focus groups. Since these participants responded to the ACS later, it may be that they were similarly reluctant to comply with other survey requests. Otherwise, participants' responses in this section of the focus group were similar across groups. Most focus group participants reporting prior experience with surveys said they felt like they are asked to participate in surveys frequently:

"Constantly."

"It has become an overused marketing tool."

Many participants reported receiving several survey requests every month, while others said they are asked to participate several times a week, and some said even every day. Participants generally did not respond to every survey they came across, but reported completing the following kinds of surveys:

- Customer satisfaction surveys (grocery store, post office, restaurant, bank, utility, etc.)
- Medical/hospital surveys
- Political polls
- Website satisfaction surveys
- Employee feedback surveys

Customer satisfaction surveys were the most frequently reported, and several participants noted that requests to complete these types of surveys are often found at the bottom of a receipt. Participants in both self-response and interviewer-administered response focus groups reported completing different kinds of surveys on the telephone, in person, online, and on paper. The most commonly reported response modes were online and telephone.

When asked how they decide whether or not to respond to these survey requests, participants identified a number of factors that influenced their decision. The majority of participants said they wanted to see some sort of benefit for themselves or others. This could include receiving an incentive for participating, improving poor customer service, rewarding good customer service, or perceiving some sort of unspecified "greater good" will come of the data. The length of the survey was also important to participants, with shorter surveys being preferable. Some participants also mentioned that the sponsor and topic of the survey were important. They did not want to provide their data to an organization with which they were unfamiliar out of concern that it would be used for a nefarious purpose. They also did not want to spend time responding to a survey on a topic that was irrelevant to them:

"Say [a tobacco company] gave me a call and said, 'would you like to participate in a survey?' I would probably say no, because I don't smoke."

Many focus group participants had at least one negative experience responding to a survey. Respondents were frustrated when the survey was long or longer than they were initially told it would be and when they perceived questions to be poorly worded or repetitive. A handful of participants reported experiencing fundraising under the guise of survey research ("frugging"), selling under the guise of survey research ("sugging"), or scams.

When asked how they think survey data are used, many participants said that they did not know or were skeptical because they had not seen evidence of surveys' effects in their lives. Others said that they "hoped" it would be used to take action:

"Good question. I always wondered."

"I guess it depends on the survey but for the most part I don't really think it's going to affect anything or change anything."

Other participants had a vague sense that the numbers were "crunched" and survey data are used to produce statistics, create reports, monitor trends over time, and learn about survey respondents' preferences. Participants thought data could be used to improve customer service and examine medical costs. A few participants started thinking about the ACS in this section despite not being probed about it yet and mentioned the data being used for creating population statistics and determining where roads and housing are needed.

4.2.2 ACS Experience

Participants were next asked what they recalled about their experience with the ACS. We started with open-ended questions so that we could determine what features of the ACS were most salient to participants and therefore might contribute to their perceptions of burden. After participants were given sufficient time to spontaneously recall their experience, we asked probes from the moderator's guide as needed about what they remembered about being contacted for and responding to the ACS. These probes were developed to collect feedback on 1) survey features discussed in the literature as potential contributors to burden perceptions (e.g., question sensitivity, length) and 2) ACS-specific features that researchers identified as potential contributors to burden perceptions (e.g., mandatory messaging, number of contact attempts). Moderators used more probes in focus groups where spontaneous recall was low.

After probing participants on their ACS experience, we asked them to respond to a written burden question about the overall burden of the ACS that was adapted from the CE (U.S. Bureau of Labor Statistics 2017). We asked participants to discuss how they came up with their answers and what "burdensome" means to them. Participants then answered and discussed 12 additional burden questions, most of which were adapted from Sharp and Frankel (1983) and the 2012/2013 Consumer Expenditure Survey (Yang 2015).⁸ These questions were on topics such as the length of the ACS, question difficulty and sensitivity, and importance of the ACS (see Appendix 8.1 for question wording). The burden questions were used to encourage further discussion; the focus groups were not used to cognitively test these questions. To conclude the groups, we asked participants about changes that would make the ACS less burdensome and if they had any final comments.

For simplicity, we group comments by survey feature in this report, because many of the burden questions used in the latter section of the focus groups overlap with features discussed during spontaneous and probed discussion. We distinguish spontaneous comments, comments made in response to a probe, and comments made in response to a burden question for each survey

⁸ Participants in two focus groups answered the 12-question series first, followed by the question on overall perceptions of burden. We changed this for the other focus groups because we were concerned about the potential for order effects in participants' answers. In most groups, each of the 12 questions was discussed individually; however, in some groups the moderator went through multiple questions at once due to time restrictions.

feature. Not all features had corresponding burden questions. We then discuss participants' reactions to the burden question about the overall burden of the ACS and responses to probes about what features contributed to their perceptions of burden. As a result, the order of the results section is slightly different than that of the moderator's guide.

We note that at least one participant in nearly all of the focus groups conflated the ACS with the decennial census, such as by commenting that the ACS is administered every 10 years. One participant explicitly asked how the ACS and the decennial census are different. The level of recall also varied widely by participant and by group. In about a third of the 10 groups, most participants were able to recall their experience in great detail with little prompting. In another third of the groups, participants could generally remember a few details, but also made some obvious errors in their recall (e.g., stating that the ACS asks about make and model of their car). In the remaining groups, most participants could recall almost nothing and said that their experience was not memorable. There was no clear evidence of conflation with the census or recall differing between the self-response and interviewer-administered response groups.

The majority of comments made during the focus groups had to do with the ACS questionnaire itself, including the mode in which they responded, the length of the survey, question topics, difficulty, and sensitivity. There were also some comments about the number and type of contact attempts participants received. Participants reported that they did not remember much about the messaging of these contacts, but some participants recalled that response was mandatory and commented about how ACS data would be used, which may have been gleaned from the mailings, or from the FR for those who responded with an interviewer. Some participants also commented that ACS data are important and made other comments about their beliefs and attitudes towards the ACS. We discuss each of these individually in the following sections.

4.2.2.1 Responding to the ACS

4.2.2.1.1 *Spontaneous Comments*

Focus group participants were generally able to correctly recall their mode of response to the ACS, unprompted. Participants in the self-response focus groups who reported responding online said they had a positive experience. One participant said online response was easy because all of the records he needed to respond were readily accessible on the computer. Two participants said they appreciated being given the option to respond by mail; one of these participants did not have internet access. While some participants responded early in the field period, a couple of the self-response participants reported that they responded later. For example, one participant noticed her parents had neglected to respond despite receiving many pieces of mail and so she completed the paper questionnaire.

Participants in the interviewer-administered response focus groups thought the FRs were professional and friendly. Many of these participants indicated that they liked responding with an interviewer, in some cases finding it preferable to self-response because of the personal interaction and because it was easy to respond that way. One participant said she liked the phone

because she knew she would “stop and do it right then and there.” A few participants discussed starting the ACS online or on paper and then neglecting to finish; one participant said he lost the paper form and another stopped because he felt unsure whether the request was legitimate. He felt reassured when an FR called him and he then completed the ACS over the phone. Another participant also said his response was reluctant because he did not understand what he was being asked to do until he was contacted by an FR:

“I got caught off guard because I didn’t know what I was about to get myself into. Had I known, I would not have taken that phone call. But once I was there I didn’t want to be rude and say, ‘hey, I have to go.’”

4.2.2.1.2 Probed Comments

Participants made similar comments when we specifically probed them on what they remembered about responding to the survey. A couple of people in self-response groups said they responded right away, while a couple of self-response focus group participants talked about starting the ACS online or on paper and coming back to it later, with one saying she got a reminder to finish before she completed it.

“I just went online and did it.”

“I remember getting it in the mail and setting it aside and then filling it out when I got nudged.”

In the interviewer-administered response groups, one participant added that she felt bad that the Census Bureau had to send a FR to her home because she did not respond earlier, and another said that she thought if she ignored the mail she received and did not respond the ACS would “go away.”

4.2.2.1.3 Burden Question Comments

In the last portion of the focus groups, participants were asked to answer a burden question about how motivated they were to respond to the ACS as quickly as possible; most of them indicated they were motivated to complete the ACS quickly (see Table 3). More participants in the interviewer-administered focus groups reported being “very motivated” to respond quickly than in the self-administered groups. However, participants’ interpretation of what this question was asking varied.

Table 3. Respondents' Motivation

How motivated were you to complete the ACS as quickly as possible? Would you say that you were:

Response option	Self-response (n = 26)	Interviewer-administered response (n = 20)
Very motivated	9	10
Somewhat motivated	13	4
Somewhat unmotivated	2	4
Very unmotivated	2	2

“Just wanting it to be done” was a common theme in participants’ comments. About half of the participants said that they were thinking about being motivated to begin responding to the ACS as soon as possible, while others thought about getting through the survey quickly once they had started. These two different interpretations were found in both types of focus groups. This may have contributed to the somewhat surprising result of interviewer-administered response focus group participants saying they were very motivated to complete the ACS.

One participant said that it was not that they were not motivated to complete the ACS, but that instead it was that it was not a priority for them; this participant answered “very unmotivated.” Another participant said she was trying *not* to complete the ACS quickly once she started; she wanted to take her time to answer the questions carefully. She chose “somewhat motivated” in response to this question.

4.2.2.2 Length of the ACS

4.2.2.2.1 Spontaneous Comments

The ACS takes 40 minutes to complete on average. With the exception of questions on housing, most are asked at a person-level of all members in the household; therefore, the length varies depending on the size of the household. At least a few participants in most of the groups said unprompted that they thought the ACS was too long and/or too repetitive. Some participants who said it was repetitive said there were questions that asked the same thing in multiple ways, but participants were unable to provide examples of this. Others commented that it was repetitive to answer about each household member.

“That was too many, they could’ve asked like ten questions and it should have been a wrap.”

“It was quite intense. It had a lot of questions.”

On the other hand, a few participants, mostly in interviewer-administered response focus groups, said the experience was quick, guessing it took somewhere between 10-20 minutes. One of these

participants said it did not feel very long because the FR knew how to navigate the survey efficiently.

"It's quicker on the phone... if you take the form, it's going to take longer because of the reading and writing."

Overall, very few participants across the focus groups gave an estimate of how long it took them to complete the ACS before we explicitly asked. Only one participant mentioned being told in advance how long it would take. This participant said the time estimate was 45 minutes, which she thought was accurate based on her experience. No participants mentioned seeing the statement on the back page of the paper questionnaire, which says, "The Census Bureau estimates that, for the average household, this form will take 40 minutes to complete, including the time for reviewing the instructions and answers."

4.2.2.2.2 Probed Comments

When we probed participants about the length of the ACS, participants indicated they were not sure and were guessing. Responses varied widely from 10 to 90 minutes, though the majority of participants said it took between 20-45 minutes. These estimates varied by group type, with more participants in self-response groups tending to estimate somewhere between 30-45 minutes, and more participants in interviewer-administered groups tending to estimate less than 20 minutes. It is possible that participants who responded with an FR may have completed the ACS faster because the FR was familiar with navigating the instrument quickly or encouraged respondents to provide a best estimate. One participant who completed the ACS by CAPI commented:

"It only took about 10, 15 minutes. [The FR] asked me basic questions... [It] was straight to the point."

One participant said the length was not "anything extraordinary." Similarly, participants were not sure how many questions were on the ACS.

At this point a few more participants talked about being told how long it would take to complete the ACS, with one participant saying the FR told her it would take 15 minutes but it actually took much longer than that. While some participants repeated comments about the survey being too long ("it felt like a century"), a couple of participants also said that the length seemed right given what needed to be asked. In a few groups, factors such as household size and whether they needed to look up information in order to respond were mentioned as influencing the time spent responding or potentially impacting the amount of time other people spend completing the survey.

"I think a lot depended [on] if you had three [people] in your household versus seven in your household."

4.2.2.2.3 Burden Question Comments

Participants were asked to answer a burden question about the length of the ACS. Participants in the self-response focus groups were divided in their opinions of the ACS length, with about half saying it was too long and about half saying it was about right; most interviewer-administered response focus group participants said the length was about right (see Table 4). This may be because interviewer-administered focus group participants tended to say the ACS took less time than those in the self-response groups and/or because more self-response focus group participants lived in larger households. Most of the participants who said it took too long lived in a household with at least one other person. Participants who complete the ACS on paper can preview the length of the questionnaire in a way that respondents in other modes cannot by physically flipping through the form ahead of time. We did not see any evidence of this influencing perceptions in the self-response focus groups. Mail and internet participants were evenly split between viewing the ACS was about right and too long.

In several self-response focus groups, participants said the length was about right given the importance of the ACS and that this is a survey for the Census Bureau. Comments made by participants who thought the ACS was too long were similar to previous comments made during the spontaneous and probed focus group sections. Perceptions of ACS's length were influenced by a) having a large household size, b) experiencing difficulty answering the questions, c) being unsure about the purpose of some of the questions, and d) needing to look up information or get help from someone else.

Table 4. Respondents' Perceptions of ACS Length

Do you feel that the length of the ACS was too long, about right, or too short?

Response option	Self-response (n = 25)⁹	Interviewer-administered response (n = 20)
Too long	12	4
About right	12	15
Too short	0	1

Participants in a couple of the interviewer-administered response focus groups said that their response seemed shorter than self-responding on the paper form would have been; this led one participant to say the ACS seemed too short. Some participants also thought about how long they were told it would take or how long the ACS took relative to their own expectations.

We also asked participants how they would feel if the ACS were to be extended for an additional 15 minutes. This burden question was used as an indicator of participants' willingness to continue participating in the ACS if asked to do so. Most participants, especially in the interviewer-administered response groups, said they would be somewhat or very willing to continue (see Table 5).

⁹ One participant did not answer this question.

Table 5. Respondents' Willingness to Extend Response

If we had to extend the ACS for another 15 minutes, how willing would you have been to continue?

Response option	Self-response (n = 26)	Interviewer-administered response (n = 20)
Very willing	4	5
Somewhat willing	14	10
Somewhat unwilling	6	1
Very unwilling	2	4

However, some participants said this would be irritating, especially if they were not told upfront how long the survey would take, and some perceived that any additional questions would be too detailed and personal. Other participants said that it would depend on whether the additional information was needed and how it was going to be used. A couple of participants said they would not have a choice in the matter since response to the ACS is mandatory.

4.2.2.3 Questions on the ACS

4.2.2.3.1 Spontaneous Comments

The topic of the questions on the ACS came up in about half of the focus groups unprompted. In a few groups, participants described the ACS as asking basic questions “about the household” or “just basic facts that they need to collect.” One participant remembered some of the questions including a reference period (e.g., “in the past 12 months”) and said the questions were specific. A couple of participants incorrectly recalled being asked about topics such as square footage. Some of the questions recalled by participants included:

- Name
- Age (mentioned several times)
- Race
- Sex
- Employment/“profession”
- Number of people in the household (mentioned several times)
- Type of housing unit: mobile home, single-family home, etc.
- Property value
- How long they have been living in their housing unit
- Year their house, apartment, or mobile home was built
- Whether their home has a stove
- Utilities, such as heating fuel and electricity
- Mortgage information
- Income (mentioned several times)

Participants were not always sure why certain questions were being asked; for example, one participant thought the utilities questions were particularly strange. A participant in an

interviewer-administered response group said that not all of the questions applied to her but “they had to ask [them] anyway.”

4.2.2.3.2 Probed Comments

When we specifically probed participants about the questions they remembered from the ACS, participants repeated many of the question topics mentioned earlier, like age, race, income, employment, number of people in the household, utilities, and year built. A couple of participants incorrectly recalled being asked about topics such as number of siblings, the size of their windows, and the make and model of their car. Other questions mentioned at this point that had not come up previously included:

- Citizenship (mentioned a couple of times)
- Education (mentioned a couple of times)
- Date and place of birth
- Health insurance
- Relationship of household members to each other
- Number of rooms in their housing unit

4.2.2.4 Question Difficulty and Effort

4.2.2.4.1 Spontaneous Comments

Most participants in both the self-response and interviewer-administered response groups spontaneously mentioned that they thought the ACS was “easy,” “straightforward,” “basic,” and “simple” as a whole, though some found individual questions to be confusing.

“[It was] pretty much yes/no, how many, who.”

A participant in a self-response group said that the reference periods and skips on the paper form were sometimes confusing. In one interviewer-administered response group, participants said the FR was able to explain any questions that confused them.

In a few groups, participants mentioned needing to look up information or consult with a household member in order to respond; one participant looked up her mortgage. A few participants mentioned the effort required to respond on the behalf of other household members:

“The questions were fairly easy; they weren't difficult at all. But...I had to keep, you know, asking...yelling back in the room, ‘hey, where do you work? How many hours do you work? What do you do?’”

Most of the participants making these comments lived in more complex households: one had stepchildren, one had adult children who sometimes lived with her, and two had roommates. One participant referred to this experience as “frustrating but also interesting.” Some other

participants speculated that their experience may not have been as easy or pleasant if they lived in larger households:

“I could see [how] if you’re [not in] a nuclear family... that [the ACS] might be difficult.”

4.2.2.4.2 Probed Comments

When we probed participants about the ease or difficulty of responding, participants generally repeated that the questions were straightforward and easy to answer overall. A few people said the questions were not difficult, but they sometimes made them think about why they were being asked. A couple of people talked about trying not to estimate, and another participant was confused about whether to include a sibling away at college. There were a couple of comments about FRs being helpful; one participant who is a renter said they were unsure how to answer about heating fuel, but the FR was able to help her after seeing the type of thermostat she had.

Participants also repeated comments about household size playing a role; one participant said it was easy because she lives alone. There were some additional comments about needing assistance from household members and/or records. Examples included a telephone ACS respondent putting his phone on speakerphone so other household members could chime in and another participant going to look up her income because she had recently changed jobs.

We also asked a probe in this section about whether participants completely finished the ACS at one time. Almost all of the participants across both types of focus groups indicated that was the case, with one participant saying she was “committed” once she started.

4.2.2.4.3 Burden Question Comments

When we asked participants to answer a burden question about the difficulty of the ACS, the majority of focus group participants said they found the ACS very or somewhat easy, as in earlier portions of the focus groups (see Table 6). More participants in the interviewer-administered groups said it was very easy than in the self-response groups. When deciding how to answer this burden question, most participants said they considered whether or not they had to look up information and how many people they had to respond for in the ACS. It is possible that previous discussion about consulting records may have influenced responses in this section. A participant in an interviewer-administered response focus group reiterated that the FRs helped with difficult questions, and a self-response participant said that it was easy because once he answered questions for one person, he knew what to expect for the next household member.

Table 6. Respondents' Perceptions of ACS Difficulty**How easy or difficult was it for you to answer the questions in the ACS?**

Response option	Self-response (n = 26)	Interviewer-administered response (n = 20)
Very easy	9	13
Somewhat easy	13	4
Somewhat difficult	4	3
Very difficult	0	0

We also asked participants to answer two burden questions about the level of effort they put into responding to the ACS. Most participants across groups said they put in a moderate amount of effort into responding to the ACS (see Table 7). Overwhelmingly, participants said that answering the ACS required some effort because they tried to be precise in their responses, with some people repeating earlier comments about getting help or looking up information. A few participants said that responding took a little bit of time and thus effort. A few participants said that it took some effort for them to get started but that once they did the ACS was not that bad. Other comments that were made once each included that the fact that the ACS is mandatory means it is a lot of effort, that proxy response required the most effort, and that a different response mode may have required less effort. While most participants correctly interpreted this burden question as intended as asking about their own effort in responding, a couple of participants answered based on the amount of effort that the Census Bureau put into contacting them to encourage them to respond. One of these participants said a moderate amount of effort and the other said no effort.

Table 7. Respondents' Perceptions of Amount of Effort**Thinking about the amount of effort that you put forth into answering the ACS, would you say that you put forth:**

Response option	Self-response (n = 26)	Interviewer-administered response (n = 20)
A lot of effort	6	4
A moderate amount of effort	13	11
A little effort	6	5
No effort	1	0

Next, participants answered a burden question about whether their time and effort was well spent responding to the ACS. No participants said their time and effort was not at all well spent, but responses to this burden question were mixed across groups (see Table 8). Participants did not have many additional comments about this question, perhaps because of its similarity to the previous one. Most of the participants who commented on this burden question were in the self-response focus groups and discussed considering the ultimate value of the information on the ACS and its importance. Participants who gave lower ratings tended to do so because they were

unsure of the ultimate data use or purpose of the survey. Others were more optimistic about the uses of the data and thought their time and effort was well spent.

Table 8. Respondents' Perceptions of Value of Effort

Would you say that the time and effort you put into answering the ACS survey questions was:

Response option	Self-response (n = 26)	Interviewer-administered response (n = 19)¹⁰
Very well spent	10	9
Somewhat well spent	9	6
A little well spent	7	4
Not at all well spent	0	0

4.2.2.5 Question Sensitivity

4.2.2.5.1 Spontaneous Comments

Participants in about half of the groups felt that at least some of the questions on the ACS were sensitive, most frequently describing it as “personal.” One participant joked, “You might as well have a chip in me when this is over.” Another participant said he only answered the questions because it was for the Census Bureau; he would not answer them for anyone else. Many participants who found the ACS sensitive were the same ones who said they found response difficult because of their complex households:

“I felt kind of awkward answering questions about them because...I didn't know how it was going to be used. I just felt like it wasn't my information to give, I guess.”

One of the participants with roommates said it was sensitive because her roommates were not U.S. citizens. Another participant said that she and her roommates each individually logged into the survey online to answer about themselves:

“At first I started filling it out and then when it started asking these details about them I was like, ‘I don't know.’ I basically had to then coordinate and be like, ‘here's the PIN guys, and here's this.’ We had to do these separate log-ins ... we know each other well enough, but I was kind of thinking...we could have scrolled through and seen [how much money] we made, some kinds of personal information.”

4.2.2.5.2 Probed Comments

When we administered additional probes about the sensitivity of the questions, participants continued to be divided in their opinions, with some saying the questions were fine and there were not any that they would not want to answer, and others characterizing them as too personal. Most participants who found the ACS sensitive did not cite any specific questions as

¹⁰ One participant did not answer this question.

being particularly sensitive. One person who found the ACS sensitive said the questions were “nosy” and another said the level of detail requested in the questions is what made it sensitive. Another participant asked if the ACS included Social Security numbers; participants in that focus group agreed it would be sensitive if it were asked (it is not). Some participants reiterated earlier comments about the sensitivity of proxy reporting on someone else’s behalf.

4.2.2.5.3 Burden Question Comments

When participants answered a burden question about the sensitivity of the ACS at the end of the focus groups, participants’ perceptions of the sensitivity continued to be mixed. More self-response participants found the ACS questions to be sensitive compared to participants in the interviewer-administered group (see Table 9).

Table 9. Respondents’ Perceptions of ACS Sensitivity

How sensitive did you feel the questions on the ACS were?

Response option	Self-response (n = 26)	Interviewer-administered response (n = 20)
Very sensitive	6	1
Somewhat sensitive	10	6
A little sensitive	8	6
Not at all sensitive	2	7

As in earlier sections, participants who found the ACS sensitive cited lack of knowledge about data use, occasional issues with certain questions such as income (especially if they thought similar questions on sensitive topics were asked multiple times), and proxy response on behalf of household members as making response more sensitive. One participant also discussed concerns about hacking risks in this section. People who did not find the ACS sensitive tended to either say the questions were not personal in any context, or that questions they would usually consider to be too personal were okay on a Census Bureau survey. Two participants mentioned that they knew the data would be aggregated which made it less sensitive.

In two focus groups, participants seemed to interpret this burden question as asking about the difficulty of responding and commented on estimating for some items. It is unclear why they had this interpretation.

4.2.2.6 Number and Mode of Contact Attempts

4.2.2.6.1 Spontaneous Comments

Some participants in the self-response focus groups spontaneously mentioned receiving contacts in the mail. One participant in a self-response focus group said they received multiple phone calls. Some participants commented that they received reminder mailings because they had not yet responded, and many said receiving reminders was helpful. One participant commented on receiving a reminder after they had already completed the survey, and another participant said the timing of a reminder surprised them:

“I got letters saying to do it online, and then three days later I got a letter that said, ‘You haven’t filled it out yet,’ and I was like ‘Holy cow! It’s only been three days! It’s not even the weekend yet!’ [focus group laughs].”

Participants in one of the self-response focus groups remembered contact attempts in great detail; for example, they discussed receiving internet instructions first and a paper questionnaire later. On the other hand, participants in just one of the interviewer-administered focus groups mentioned receiving contacts in the mail without prompting from the moderator. This was somewhat surprising, since the ACS sends out five mailings before an FR attempts to contact someone living at that address. It is possible that these participants were not paying much attention to their mail, or that someone else in their household saw the mailings instead. One participant in this group was unsure whether the mailing he received was legitimate and did not respond until he was contacted by phone, at which point he completed the survey. Two other participants in this group said they received multiple mailings, with one participant saying he threw them away; both of these participants ultimately responded to the ACS by CAPI. In the other focus groups, participants mentioned having interactions with FRs by phone, in person, or both, but did not mention receiving anything in the mail. Some participants recalled receiving a notice of visit or missed phone call that they responded to, while others only recalled a single contact attempt in which they also responded to the ACS. A couple of participants said they were surprised to be contacted on the phone or in person, with one participant even suggesting that they be warned or notified somehow ahead of time.

4.2.2.6.2 Probed Comments

When we probed about the contacts they received, self-response focus group participants generally reiterated receiving contacts in the mail (usually two), and a few more participants discussed receiving phone calls.

At least some participants in every interviewer-administered response focus group were able to recall receiving mail when specifically asked, though some still said they had not. Some interviewer-administered response participants who said they received mail reported getting only one piece of mail, while others remembered receiving two, three, four, or five. One participant incorrectly remembered receiving six pieces of mail.¹¹ Participants in these groups also elaborated on receiving phone calls and/or personal visits or notices of a personal visit.

Some of the self-response and interviewer-administered response participants were able to provide detailed contact narratives:

“First I got it in the mail...I looked at it and I thought, ‘oh god, it’s going to take a minute’ so I sat it over there and it just sat there. And then I got a call and it said ‘Census Bureau’ but I didn’t trust them. So they called me twice, and I didn’t pay any attention to them but then...when I came home [my landlord] gave me the [FR notice of visit] and she said, ‘I think you should call because [the FR] sounded like it was important,’ so then I went

¹¹ It is possible this participant was including a notice of visit from an FR in their answer.

upstairs and called her. She asked me if I wanted to send the [ACS] in, or she could come by and do it with me, or over the phone, and I said, 'since I've got you on the phone can I just go ahead and do it now?'"

Many participants across groups were also able to provide a general description of the types of mail they received when we asked, including postcards and “thick” letters/big envelopes (likely the third mailing questionnaire package). In a couple of groups, participants recalled receiving mailing materials that were different colors and/or sizes, with one participant correctly remembering that they received a green postcard. At this point in the groups, two participants mentioned they had been traveling when they received the ACS so by the time they checked their mail they had received many pieces of mail at once. Similar to earlier comments, some participants said receiving reminders was helpful and that they could not complain about receiving them because they had not yet completed the ACS.

“It was just the right amount for me because I kept forgetting.”

“I’m sure some people were probably annoyed by it but it got the job done.”

Only a couple of participants said that the number of times they were contacted was a lot or felt excessive. Other than those who responded by mail, most participants did not mention receiving a paper questionnaire. When we asked them if they received one, some participants said they did and that they put the questionnaire to the side and meant to get around to it, while others did not recall receiving one. Responses did not differ between self-response and interviewer-administered response groups.

4.2.2.6.3 Burden Question Comments

When asked to answer a burden question about contacts at the end of the focus groups, the majority of participants said they felt like the number of contacts they received was reasonable, commenting they did not feel “flooded” or “bombarded” (see

Table 10). Some of these participants said this was because they only recalled one or two contacts, while other participants reiterated comments about how they had not yet responded and that it was therefore reasonable to receive reminders to do so. Another participant recalled contacts that were about a week apart, which she thought was good because they were not “back-to-back.” While a few people felt like they received too many, there was not much discussion of this, other than from one participant who had been away and thus received multiple pieces of mail at one time.

Table 10. Respondents' Perceptions of ACS Contact Attempts

Thinking about the contacts you received for the ACS, would you say it was too many, a reasonable number, or not enough?

Response option	Self-response (n = 26)	Interviewer-administered response (n = 20)
Too many	2	6
A reasonable number	24	14
Not enough	0	0

One participant in a self-response focus group interpreted “contacts” as referring specifically to phone calls and at first felt he could not answer this question because he did not receive any phone calls. After hearing the comments made by other members of the focus group, the participant was able to answer the burden question.

4.2.2.7 Messaging of Contact Attempts

4.2.2.7.1 Spontaneous Comments

Not many participants in either the self-response or interviewer-administered response groups made explicit comments about the messaging of the contact attempts they received. Comments about response to the ACS being mandatory came up spontaneously in about half of the focus groups, including self-response and interviewer-administered response focus groups. The reaction to the ACS being mandatory was mixed, with some respondents disliking it and others saying it communicated to them that the survey must be important.

Only one participant each in three of the focus groups specifically mentioned other types of messaging in the contact attempts. No one said they could recall specific messaging from the contact materials about how the data would be used or why the ACS is conducted, though comments made by some participants on these topics during other parts of the focus groups indicated that perhaps they had simply forgotten where they had learned this information. One participant in a self-response group said they were motivated to complete the ACS so an FR would not contact them:

“[It said] you better finish your survey in like 5 days or we’re going to come visit ya.”

Another self-response group participant remembered that their responses would be confidential and an interviewer-administered response group participant said that the FR with whom they completed the interview gave him a business card and materials that could help answer questions. Additionally, one participant in a self-response group brought some of the mailing materials to the focus group.

4.2.2.7.2 Probed Comments

When we specifically asked participants whether response to the ACS was mandatory or voluntary, most participants across all groups recalled that it was mandatory. A few people said they would have still done it if it was not mandatory. One person referred to the ACS as “statistics jury duty.” However, some participants, mostly in interviewer-administered response focus groups, thought response was voluntary¹². Participants were still not able to recall other types of messaging in great detail. One participant who responded online commented:

“To be honest I never really read the whole thing.”

A couple of participants recalled messaging about how they would continue to be contacted until they participated. Other messaging or interactions recalled once or twice each included that the household was randomly selected for the survey (self-response participant), that the CATI interviewer made sure the participant was not driving when he called (interviewer-administered response participant), and that there was contact information for additional follow-up questions (interviewer-administered response participant).

4.2.2.8 Knowledge, Beliefs, and Attitudes about the ACS

4.2.2.8.1 Spontaneous Comments

During the first two portions of the focus groups, other comments from participants tended to focus on how ACS data are used. Despite participants’ lack of recall for specific messaging, participants in nearly all of the groups spontaneously articulated some sense that ACS was useful and valuable. A few participants referred to responding as a civic duty.

“It will help the city and the town and I think that’s very important.”

“It made me feel good that I was able to contribute to something like that.”

However, there were a few participants who felt unsure about how the data are used:

¹² FRs are instructed not to push the mandatory response requirement in order to gain cooperation with respondents.

"I know it's for data, statistics but...I'm more concerned about the outcome of the demographic research. I feel like the questions they were asking, there was legitimacy, but...it would be nice to know...well, in answering this, these things will be affected."

Other questions that came up once or twice across groups were how ACS data are kept secure, why ACS information could not be collected from administrative records, and how ACS respondents are selected.

4.2.2.8.2 Probed Comments

When we specifically asked participants how ACS data are used, participants made similar comments to the ones they made spontaneously and in the general survey experiences portion of the group. As mentioned earlier, some participants were fairly knowledgeable despite reporting that this information was not communicated to them in the contact attempts they received, indicating they may have simply forgotten their contents. Participants across groups said that the ACS is used to:

- Plan for the future
- Designate funds for communities and community resources like schools and hospitals
- Create population statistics (overall or by demographic/geographic subgroups)
- Create "reports" or graphs
- Monitor changes in the population over time

Other participants stated generic uses such as "just a lot of statistical analysis" and said that the government would "review it." A few participants also mentioned decennial data uses, such as the data being used for congressional redistricting. However, participants in about half of the groups said that they did not exactly know how the data would be used or expressed some sort of skepticism that it would be used for its intended purpose.

"I hope they use this for good analysis [and don't] sell it off for marketing out to the public."

"As far as what effect this has on us, I have no idea."

"I don't think much will be done in the community."

One participant referred to the steps between data collection and eventual data uses as a "wall" between the Census Bureau and the public through which it was not clear what happens.

4.2.2.8.3 Burden Question Comments

At the end of the focus groups, participants answered several burden questions relating to their knowledge, beliefs, and attitudes towards the ACS broadly, including on the importance of the ACS, trust in the Census Bureau to safeguard respondent information, level of interest in the ACS, and willingness to participate again in the future.

Participants generally thought that the ACS is important (see Table 11) for reasons discussed previously in the data use sections of the focus groups, such as that the data are just generally important and that data are used for planning and funding decisions. Again, a few participants indicated feeling unsure about how the data are used and, therefore, had trouble answering this burden question.

Table 11. Respondents' Perceptions of ACS Importance

How important do you think it is for the U.S. Census Bureau to collect the information on the ACS?

Response option	Self-response (n = 26)	Interviewer-administered response (n = 19)¹³
Very important	15	13
Somewhat important	10	4
Neither important nor unimportant	1	1
Somewhat unimportant	0	0
Very unimportant	0	1

Most participants said that they trust the Census Bureau to safeguard their information. There were more participants in the self-response focus groups than in the interviewer-administered response focus groups who said they neither trusted nor distrusted the Census Bureau (see Table 12). Across groups, the majority of participants who were not very trusting said it was because everything today is hackable, including Census Bureau data.

"I don't know where it could be floating around. Look what happens."

Other participants said they thought the information might otherwise be leaked or misused and one participant brought up the potential for scammers to impersonate the Census Bureau. Two participants answered this question based on their level of trust in the government more broadly.

In a few groups, participants discussed the potential for data sharing between government agencies. In one of these groups, participants assumed their data was shared but did not mind because they had "nothing to hide"; in another group, participants strongly trusted the Census Bureau because they said they knew their individual information could not be shared.

Table 12. Respondents' Trust in Census Bureau

How much do you trust the U.S. Census Bureau to safeguard the information you have provided them on the ACS?

¹³ One participant did not answer this question.

Response option	Self-response (n = 26)	Interviewer-administered response (n = 20)
Strongly trust	10	6
Somewhat trust	5	9
Neither trust nor distrust	8	3
Somewhat distrust	3	2
Strongly distrust	0	0

Participants' responses to a burden question about how interesting the ACS is varied, but most said the ACS was a little or somewhat interesting (see Table 13). People who thought the ACS was interesting often said it was because the ACS is important and the data are used widely. On the other hand, some participants said the ACS was interesting because they did *not* understand how the data are used; therefore, they were curious about the purpose of the survey. Similarly, a few participants made comments about feeling curious about the rationale behind specific questions. Participants who did not find the ACS interesting said this was because it was something they just had to do. One participant said he did not see how the ACS would be interesting to anyone.

Table 13. Respondents' Interest in ACS

How interesting was the ACS to you?

Response option	Self-response (n = 26)	Interviewer-administered response (n = 20)
Very interesting	4	3
Somewhat interesting	9	10
A little interesting	10	5
Not at all interesting	3	2

Most participants were generally agreeable towards taking another survey like the ACS in the future (see Table 14). However, participants were not always thinking of the same types of surveys. While most participants thought only about the ACS, some thought about the decennial census, and some thought about surveys more broadly. Most commonly, participants said they would agree to take a survey like the ACS again because they perceived the ACS to be useful and/or a civic duty. A couple of people said they would agree because it is not a frequent request; one participant said once or a couple of times a year would be okay.

"At the end of the day it's information...they're asking for it and it's sort of anonymous, so why not? It wasn't that taxing on my life."

"If it comes up, yes I'll take it again. It [doesn't] really matter to me."

Table 14. Respondents' Agreeableness to Take Again

How agreeable would you be to take another survey like the ACS in the future?

Response option	Self-response (n = 26)	Interviewer-administered response (n = 20)
Very agreeable	12	13
Somewhat agreeable	13	7
Somewhat disagreeable	1	0
Not at all agreeable	0	0

A few other participants said they would like to see some changes made before they took it again (like making questions less sensitive), and a couple of participants brought up that response would likely still be mandatory if they were asked to participate again so they would not have a choice.

4.2.3 Burden of the ACS

After hearing about participants' experiences with the ACS through spontaneous recall and probed recall, we administered a burden question assessing overall perceptions of burden. This was asked before the other burden questions on specific survey features and attitudes that may contribute to burden presented above, in order to minimize the potential for question order to affect responses to this question. Since the literature showed that a variety of survey and respondent characteristics may impact subjective burden, we wanted to avoid priming participants as to what specific factors they should consider when answering.

We asked participants to discuss how they came up with their answers and what the word "burdensome" means to them. We also asked respondents about other characteristics of the ACS that make it burdensome, changes that would make it less burdensome, and if they had any final comments to conclude the groups.

Focus group participants did not think the ACS was "very burdensome." In response to the burden question on overall burden, none of the respondents said the ACS was very burdensome, and only seven said it was "somewhat burdensome" (see Table 15). More interviewer-administered response focus group participants evaluated the ACS as "not at all burdensome."

Table 15. Respondents' Perceptions of ACS Burden

How burdensome was the ACS to you?

Response option	Self-response (n = 26)	Interviewer-administered response (n = 20)
Very burdensome	0	0
Somewhat burdensome	5	2
A little burdensome	12	5
Not at all burdensome	9	13

When we asked participants how they came up with their answer to this burden question, many focus group participants commented that the ACS was “not a big deal” and “not a huge imposition” on their lives. One participant asked if we were conducting this research because something had “gone wrong” with the ACS.

“Why would they even ask this question? It’s not a burden.”

Participants considered a number of factors when deciding how to answer the burden question about overall burden. However, the most common responses were related to how participants felt about completing the ACS questionnaire, especially the time needed to complete it and complications associated with proxy response. Other factors related to the questionnaire included the level of effort required to complete it, difficulty and sensitivity of the questions, and needing to check records. A couple of participants said the fact that the ACS is not something they are asked to do frequently made it less burdensome.

Some participants commented on weighing the fact that response to the ACS is mandatory against the fact that the data are valuable. Slightly less often, participants commented that they considered how they felt about the contacts they received such as mail, and in the case of the interviewer-administered focus groups, interactions with FRs. These responses were fairly consistent across groups, with the exception of proxy response and response being mandatory, which came up more frequently in self-response focus groups.

When asked what being “burdensome” or a “burden” means to them, focus group participants most frequently thought of it as a nagging responsibility or chore that they need to complete:

“A thorn in your side”

“A monkey on your back”

“Something that encroaches on your daily life”

“It’s another thing on my plate that I have to do”

Many participants also said that a burden is something requiring time and/or effort, with some participants saying a task becomes especially burdensome if it interrupts your usual routine. Other common synonyms were annoying, a hassle, inconvenient, and bothersome, though participants were able to provide a long list of adjectives. Two participants who were not native English speakers were not sure what “burdensome” meant.

Several participants also specifically reiterated the ACS was not burdensome, and some said that “burdensome” did not feel like the right word to use to describe the survey:

“Took a little time for me to do it, but I wouldn’t have exactly called it burdensome. That seems like a strong word to use. Inconvenient? Sure. But burdensome almost seems like an extreme word to use for filling out a survey.”

“It wasn’t a burden to me. Like [another participant] said it’s not something you have to do every week, every month. It’s something that needs to be done so it wasn’t a burden to me at all.”

“It didn’t hurt me or cause me any conflict.”

When we asked participants how the ACS could be less burdensome, they did not have many suggestions. A few participants across groups suggested that the ACS better communicate how the data are used and to spread awareness of the survey. Other comments made a couple times each were to improve the questions by making them easier or less sensitive or asking fewer, give a deadline for responding, provide contact information, and explain the penalty for nonresponse. A couple of participants in interviewer-administered response focus groups said they thought ACS respondents should be able to choose their response mode. Some of these comments illustrated participants’ lack of memory for the mailing materials they received.

4.3 Conclusion

4.3.1 Summary of Findings

Most focus group participants, especially those in the self-response focus groups, had prior experience with surveys other than the ACS and reported being frequently asked to participate in surveys. Participants typically decided whether to participate in these surveys based on whether a personal or societal benefit would result. However, some lacked knowledge of how survey data are generally used or were skeptical as to whether data are really used as advertised. It is possible that these attitudes may influence perceptions of burden.

Participants recalled their ACS response mode and generally reported having a positive experience using that response mode. Some participants said they meant to respond earlier but had set the request aside and forgotten about it, but most said they were motivated to respond as quickly as possible. Participants were able to recall some of the questions they were asked on the ACS, and while they said that response was easy overall, some individual questions were confusing. Proxy response was sometimes difficult for participants living in larger and/or complex households. Some participants had to look up information or consult with household members in order to answer. Most participants indicated that responding to the ACS required some level of effort and they generally felt like their effort and time was well-spent.

Participants were divided in whether the questions asked on the ACS were sensitive. As they did with difficulty, some participants cited proxy response as contributing to sensitivity because they did not feel comfortable reporting for others, and others said the ACS had just generally personal questions. Some participants thought the ACS was too long and/or repetitive; this was more frequent in the self-response focus groups where participants tended to estimate it took them

30-45 minutes, compared to 20 minutes or less in the interviewer-administered focus groups. This difference may have been partly because respondents in the interviewer-administered focus groups reported that the FRs' familiarity with the survey helped expedite response. Some participants thought the length was okay given that the ACS is important. Most said they would be willing to continue if the ACS were extended for 15 minutes, which seemed to align with respondents' perceptions that the ACS was not burdensome.

In the self-response focus groups in particular, participants were able to recall receiving contacts in the mail. Memory of mail contacts was not as strong in the interviewer-administered response focus groups; these participants mostly reported interacting with FRs. Participants generally did not feel like they were contacted an excessive number of times. The messaging of these contact attempts was not particularly salient for participants, other than that response was required by law. Some participants said that this mandatory language indicated the survey was important. While they said they could not remember the messaging of the contacts they received well, most participants still had a general sense that the ACS is important and valuable. Not everyone felt like they understood the purpose of the survey, however. Most participants trusted the Census Bureau to protect their information, found the ACS a little or somewhat interesting, and were willing to take a survey like the ACS again.

Participants did not find the ACS to be "very burdensome," especially in the interviewer-administered focus groups. When deciding whether the ACS was burdensome, participants tended to think about the process of responding to the survey itself, the value of the data, that response is mandatory, and to a lesser extent, the contact attempts they received. They did not have many suggestions on how the ACS could be made less burdensome. The word "burdensome" also did not resonate with some respondents as a descriptor of their experience.

4.3.2 Recommendations for Cognitive Testing

Upon the conclusion of the focus groups, we reviewed participants' feedback in order to select items for cognitive testing. We wanted to continue testing an overall burden question in order to capture global perceptions of burden; however, we also needed to determine what other burden questions should be asked. We started by narrowing down question concepts independent of wording. We had three primary criteria for this selection. First, we considered whether participants had spontaneously mentioned a given ACS feature unprompted in the focus group, as these comments communicated what was the most salient about the ACS experience. Second, we considered whether participants mentioned a feature as contributing to how they answered the question about whether the ACS was burdensome. In some instances, we selected a feature for inclusion in cognitive testing because focus group findings were mixed as to whether it contributed to perceptions of burden. Third, for features where there was a corresponding burden question, we considered how the burden question was received by participants and whether it seemed to tap into meaningful perceptions of their experience. Researchers individually considered these criteria to identify topics for questions in cognitive testing.

After making this determination, the next step was to select the exact burden questions to include in cognitive testing. We reviewed existing burden questions from other surveys studying

burden to determine whether they would be useful as worded or with revisions. Researchers edited existing questions and drafted new items for concepts for which we could not find an existing question. We then held a series of meetings to discuss researchers' ideas and come to a consensus on a set of items for the first round of cognitive testing.

We purposely selected more burden questions than we intended to ultimately recommend for field testing with the goal of eliminating poorly performing questions after the first round of cognitive interviews. As a result of this process, we selected burden questions on the following topics:

1. Length of survey response
2. Whether length of survey response met participants' expectations
3. Question difficulty
4. Level of effort
5. Whether respondents believe the ACS invades people's privacy
6. Number of contact attempts
7. Appropriateness of contacts

In addition to keeping the burden question on whether the ACS was burdensome, we also added an alternate version asking whether the ACS was a "hassle" as a potential alternative, since some respondents found the word "burdensome" to be strong.

We drafted an introductory sentence to separate the entire burden question series from the other questions on the ACS and to encourage ACS respondents to think about their entire ACS experience when responding to the burden questions. This was because we suspected ACS respondents might think the burden questions were asking for opinions solely on the questionnaire unless otherwise prompted to think more broadly.

"We would like to get feedback on your involvement in this survey as a whole, from the first time you were contacted for the survey until now."

Below we discuss the rationale behind the selection of each burden question. In instances where we modified burden questions used in the focus groups, both the focus group wording and the revised question wording for cognitive testing are shown.

4.3.2.1 Length of survey response and whether length of survey response met participants' expectations

Participants often spontaneously mentioned how long it took them to complete the ACS and were divided on whether or not that amount of time was too long. Perceptions of length also seemed to differ by mode. Some participants reported thinking about length when answering the question about whether the ACS is burdensome.

Though length was discussed, we did not have a burden question on the objective length of ACS response in the focus groups. We wanted to test this in the cognitive interviews using a modified version of a question used on the National Teacher and Principal Survey. This burden question

could be particularly useful when analyzed in conjunction with a question on participants' perceptions of the length. A self-report question about the length of ACS response would likely only be necessary for paper form ACS respondents in production data collection, as the internet and interviewer-administered response instruments could automatically collect this information. The burden question we recommended for testing was:

*"Please indicate how much time it took you to complete this survey, not counting interruptions.
_____ minutes"*

In the focus groups, we asked participants whether the ACS was too long, about right, or too short. While this burden question seemed to capture perceptions as intended, for cognitive testing, we wanted to try a version of this question that more explicitly asked participants whether the length of the ACS met their expectations of its length. This seemed to better capture the sentiment of focus group participants who said the length seemed okay given the ACS is important. Another change between the focus group burden question and the question recommended for cognitive testing was a switch in terminology from "length" to "time." In the focus groups, respondents spoke about the two concepts interchangeably and primarily focused on how long it took them to complete the ACS as opposed to the number of questions they answered. This terminology also aligned with the wording of the previous burden question about how long it took respondents to complete the ACS.

Focus group burden question:

"Do you feel that the length of the American Community Survey (ACS) was too long, about right, or too short?"

- Too long
- About right
- Too short"

Recommendation for cognitive testing:

"Do you feel that the time it took you to complete the American Community Survey was less than you expected, about what you expected, or more than you expected?"

- Less than I expected
- About what I expected
- More than I expected"

4.3.2.2 Question difficulty and level of effort

Many participants spontaneously mentioned the questions on the ACS in earlier portions of the focus group and also thought about the difficulty of the questions when considering the burden of the ACS. While most people thought the ACS was very or somewhat easy, this did seem to differ for people in larger and/or more complex households, so we wanted to test it further for that reason. The burden question on difficulty used in the focus groups seemed to adequately capture this sentiment, so we recommended a similar version of the question with minor changes to the question stem for cognitive testing.

Focus group burden question:

Recommendation for cognitive testing:

“How difficult or easy was it for you to answer the questions in the ACS?”

- *Very easy*
- *Somewhat easy*
- *Somewhat difficult*
- *Very difficult”*

“How easy or difficult was it to answer the American Community Survey questions?”

- *Very easy*
- *Somewhat easy*
- *Somewhat difficult*
- *Very difficult”*

Participants also indicated they sometimes had to look up information and consult records and that they tried to be precise in their responses so responding required some level of effort. A couple of participants indicated that the length of time spent responding or the presence of the mandatory messaging influenced their perceptions of how much effort the ACS would require. Because of this diversity in interpretation, we wanted to test a burden question on effort further. These factors were also all identified as features participants thought about when considering whether the ACS was burdensome. Using one of the effort burden questions from the focus groups as a starting point, we reduced the number of response options, re-ordered them, and altered the question stem for cognitive testing.

Focus group burden question:

“Thinking about the amount of effort that you put forth into answering the ACS, would you say that you put forth:

- *A lot of effort*
- *A moderate amount of effort*
- *A little effort*
- *No effort”*

Recommendation for cognitive testing:

“How much effort did you put into answering the American Community Survey?”

- *A little bit to no effort*
- *A moderate amount of effort*
- *A lot of effort”*

4.3.2.3 Number of contact attempts and appropriateness of contacts

While mentioned less often than aspects of the questionnaire, participants also made comments about the contacts they received, and some thought about them when answering the question about whether the ACS was burdensome. We modified the burden question used in the focus groups for cognitive testing by changing the order of the response options, adding a fourth response option, and editing the question stem.

Focus group burden question:

“Thinking about the contacts you received for the ACS, would you say it was too many, a reasonable number, or not enough?”

- *Too many*
- *A reasonable number*
- *Not enough”*

Recommendation for cognitive testing:

“Do you feel that the number of times you were contacted for the American Community Survey was not enough, just the right amount, a little too much, or way too much?”

- *Not enough*
- *Just the right amount*

- *A little too much*
- *Way too much*

Participants in the focus groups also commented about the mode of the contact attempts they received but did not remember much about the messaging in the contacts. Comments about the timing of the contacts were also infrequent. However, we felt like we were missing a burden question that adequately captured perceptions on these other aspects of contact attempts, so we wrote a new question on this for cognitive testing. We used the word “appropriate” in this burden question to encompass a wide range of perceptions about whether the contact modes, timing, and messaging were appropriate for a survey and respectful of respondents.

Recommendation for cognitive testing:

“Thinking about the times you were contacted for the American Community Survey, would you say the contacts were very appropriate, somewhat appropriate, somewhat inappropriate, or very inappropriate?”

- *Very appropriate*
- *Somewhat appropriate*
- *Somewhat inappropriate*
- *Very inappropriate*

4.3.2.4 Whether the ACS invades people’s privacy

Focus group participants were divided in whether the ACS was sensitive; participants also considered sensitivity when deciding whether the ACS is burdensome. This suggested that we should include a burden question on sensitivity in cognitive testing. However, we noticed that participants tended to evaluate the ACS as a whole in terms of sensitivity (i.e., the entire survey was sensitive, or it was not). Few participants had a more nuanced view (i.e., only a couple questions were sensitive). For that reason, we decided to include a burden question designed to capture participants’ broader attitudes about privacy, which was a modified version of a question used by the Census Bureau on the Gallup Daily Tracking Survey (see Childs et al. 2012 for an overview of this survey).

Recommendation for cognitive testing:

“Would you say that the American Community Survey invades or respects your privacy?”

- *Invades my privacy (GO TO A)*
- *Respects my privacy (GO TO B)*

A. Would you say it is very invasive, or somewhat invasive?

- *Very invasive*
- *Somewhat invasive*

B. Would you say it is very respectful, or somewhat respectful?

- *Very respectful*
- *Somewhat respectful*

4.3.2.5 Whether the ACS was burdensome/a hassle

Finally, we wanted to test an overall burden question about whether the ACS was burdensome. Most participants were able to understand the question in the focus groups, but they tended to think about a variety of features of the ACS when answering it. Therefore, we wanted to further test it to collect more feedback. Using the focus group burden question as a starting point, we made a slight change to the question stem, re-ordered the response options, and changed “somewhat burdensome” to “moderately burdensome” for cognitive testing. We thought participants might view “a little” and “somewhat” burdensome as similar response options in this question so we wanted to see how “moderately” performed instead.

Focus group burden question:

“How burdensome was the ACS to you?”

- *Very burdensome*
- *Somewhat burdensome*
- *A little burdensome*
- *Not at all burdensome*

Recommendation for cognitive testing:

“How burdensome was the American Community Survey for you?”

- *Not at all burdensome*
- *A little burdensome*
- *Moderately burdensome*
- *Very burdensome*

Some participants felt like the word “burdensome” was a strong word to describe the ACS, so we also wanted to test an alternative. We chose the word “hassle” because it was one commonly mentioned by participants as being a synonym for burdensome. We also liked that it was more plain-language and that the connotation seemed slightly less severe than the word burdensome. The wording of the question about the ACS being a hassle was intended to closely mimic the question about the ACS being burdensome. However, we retained “somewhat of a hassle” as a response option in this version of the question because it sounded clearer than “moderately a hassle.”

Recommendation for cognitive testing:

“How much of a hassle was the American Community Survey for you?”

- *Not at all a hassle*
- *A little bit of a hassle*
- *Somewhat of a hassle*
- *Very much a hassle*

5 COGNITIVE INTERVIEWS

5.1 Methodology

5.1.1 Cognitive Interview Design

Following the focus groups, we conducted 62 cognitive interviews across two rounds of testing, with 38 interviews in the first round and 24 interviews in the second round (see Table 16). Cognitive interviews were conducted between fall 2017 and summer 2018 by seven experienced interviewers from CBSM, who were trained on the cognitive interview protocol before each round of testing. Each cognitive interview participant received \$40.

Cognitive interviews differed in three different ways: location, participant type (prior ACS or new), and response mode (internet, paper, CATI, or CAPI).

- 1) *Location:* The first round of cognitive interviews was conducted in four cities and surrounding metropolitan areas; the second round was conducted in two cities and surrounding metropolitan areas.
- 2) *Participant Type:* We recruited prior ACS respondents, as in the focus groups, but also recruited people to first complete the ACS survey and then participate in the cognitive interviews. We refer to this latter group of participants as “new participants” throughout this paper. We added this participant type for the cognitive interviews for two reasons. First, some of our focus group participants could not remember the ACS very well. One factor contributing to this may have been the time gap between when they completed the ACS and when they participated in the focus group. Second, if burden questions were to be implemented on the ACS, respondents would have the opportunity to answer them immediately after completing the rest of the questionnaire. Therefore, in order to better simulate that experience and to lessen the effect of time between response and cognitive interview on recall, we asked new participants to complete the ACS at home shortly before the interview. New participants did not receive the contact attempts that prior ACS respondents did and thus were not asked about this aspect of the survey.
- 3) *Response Mode:* As with the focus groups, we recruited participants who completed the ACS in different modes in order to ensure multiple perspectives were captured. In the first round of testing, we recruited prior ACS respondents who had completed the ACS online or on paper. Cognitive interviews began the first month that CATI was no longer offered as an ACS response mode (U.S. Census Bureau 2017b); therefore, CATI respondents were not included in this phase of the research. We did not include CAPI in the first round of testing because we wanted to interview respondents who experienced the new contact strategy methodology without CATI, and they were not available for recruitment until the second round of testing.

New participants in the first round were assigned to complete the ACS on paper or by CATI. We used CATI with these participants in this round of testing as an approximation of CAPI¹⁴ so that we could test an interviewer-administered response mode in this round of testing. We assigned participants to response modes based on whether we thought they would be more likely to self-respond or respond with an interviewer to the production ACS. This determination was made mostly using demographic characteristics (Joshipura 2008; Nichols, Horwitz, and Tancreto 2015). For example, we assigned participants who were in complex households to CATI. New participants completed the ACS prior to the cognitive interview in both modes.

In the second round of testing, we recruited prior ACS respondents who had completed the ACS on paper or by CAPI, although it was difficult to recruit respondents for the CAPI interviews (see Section 5.1.2). We did not include ACS respondents who responded online in the second round because we were primarily interested in trying to capture the perspective of people who responded later¹⁵ and/or may have been more reluctant to complete the ACS. In the second round, all new participants completed the ACS on paper.

Table 16. Cognitive Interviews by Participant Type and Mode

Round	Prior ACS			New		
	Paper	Internet	CAPI	Paper	CATI	Total
Round 1	7	8	--	11	12	38
Round 2	7	--	3	14	--	24
Total	14	8	3	25	12	62

5.1.2 Recruitment

Recruitment for prior ACS respondent interviews functioned similarly to recruitment for the focus groups. Using a list of ACS respondents in each of the interview locations, interviewers in the Census Bureau's Tucson Contact Center (TCC) called respondents to recruit them for the cognitive interviews. Prior ACS respondents had completed the ACS within a few months of their interview. Sample lists were drawn prior to each round of interviewing and were refreshed with additional sample on a rolling basis throughout the interviewing period as needed. We attempted to minimize the amount of time between when ACS respondents had completed the ACS and when they participated in the cognitive interview but this sometimes proved challenging, particularly in the second round of cognitive interviews. Prior respondents typically completed the ACS two to four months prior to the cognitive interview. Unfortunately, only one prior ACS CAPI respondent was recruited using this method in the second round of testing. Because this attempt

¹⁴ Some ACS CAPI interviews are also completed on the telephone.

¹⁵ The paper questionnaire is not sent until the third ACS mailing.

to recruit CAPI respondents by telephone was unsuccessful, we asked ACS FRs in one metropolitan area to give a flyer to respondents who completed the survey by CAPI in a given month. The flyer asked respondents to contact us if they were interested in participating in a follow-up interview. This yielded two additional interviews.

New participants were recruited using methods such as flyers, personal contacts, and postings on Craigslist.com and NextDoor.com. All new participants were screened by CBSM staff on the telephone prior to participation. Only those who indicated they are the only household member who handles the mail or that they share that responsibility with others were eligible to participate. Potential participants who indicated someone else in their household usually handles the mail were not eligible. We implemented this restriction in order to screen out people who may be unlikely to be the household respondent for the ACS. We also attempted to interview people who were diverse on demographic and household characteristics such as race, gender, education, income, age, household size, housing tenure (own/rent), and household composition (i.e., whether there were any unrelated household members).

5.1.3 Cognitive Interview Participants

Though our goal was to recruit participants diverse on a number of demographic and household characteristics, this was difficult to achieve. Recruitment was much more difficult for the cognitive interviews than the focus groups; we suspect this may partly be a result of the lower incentive amount offered for the cognitive interviews (\$40) than in the focus groups (\$75).

In the first round of testing, participants were fairly balanced on sex and were diverse in terms of household size across types of cognitive interviews (new participants and prior ACS respondents; see **Error! Reference source not found.**). However, many participants had a Bachelor's degree or higher, and were white and older. We did not have income information available for about a third of our participants, but of those for whom we had a response, many participants had a household income level of \$50,000 or more. New participants were balanced on housing tenure (own/rent) and household mail behavior (i.e., whether they are the only household member who handles the mail or whether they share that responsibility with others). While ideally we would have liked to have more participants in complex households, most new participants did not live with unrelated household members.

In the second round of testing, we attempted to recruit participants with characteristics that were not as prevalent in the first round of testing. We were successful in doing this with race; we recruited more participants who are black than in the first round. Across both types of cognitive interviews (new participants and prior ACS respondents), participants were again fairly diverse in terms of household size (see **Error! Reference source not found.**). However, many participants had a Bachelor's degree or higher and were male and older. For participants for whom we had a response for income, more had a household income of \$50,000 or more. As in the first round, new participants were balanced on housing tenure (own/rent) and household mail behavior; most new participants did not live with unrelated household members.

Table 17. Round 1 and 2 Cognitive Interview Participant Characteristics¹⁶

Demographic characteristic	Round 1			Round 2		
	Prior ACS respondents (n = 15)	New participants (n = 23)	Total (n = 38)	Prior ACS respondents (n = 10)	New participants (n = 14)	Total (n = 24)
Race¹⁷						
White	10	13	23	3	6	9
Black/African American	4	8	12	6	8	14
Other	1	2	3	0	0	0
Sex						
Male	7	9	16	7	8	15
Female	8	14	22	3	6	9
Household Income						
Less than \$50,000	1	6	7	2	3	5
\$50,000 - \$99,999	2	8	10	1	6	7
\$100,000 or more	2	8	10	1	4	5
Missing	10	1	11	6	1	7
Age						
18-29	0	8	8	0	3	3
30-44	1	6	7	0	7	7
45-60	5	5	10	2	3	5
Over 60	9	4	13	8	1	9
Tenure						
Own	—	11	11	—	7	7
Rent	—	12	12	—	7	7
Unrelated Household Members						
Yes	—	5	5	—	3	3
No	—	18	18	—	11	11

¹⁶ We do not have information on tenure, mail behavior, and household composition available for prior ACS respondents, as these questions were not included in our recruitment screener for this population.

¹⁷ One participant in Round 2 did not answer this question.

Table 17. Round 1 and 2 Cognitive Interview Participant Characteristics (cont.)

Demographic characteristic	Round 1			Round 2		
	Prior ACS respondents (n = 15)	New participants (n = 23)	Total (n = 38)	Prior ACS respondents (n = 10)	New participants (n = 14)	Total (n = 24)
Educational attainment¹⁸						
High school degree or less	5	2	7	2	2	4
Some college, no degree	2	4	6	2	2	4
Associate's degree	2	3	5	0	2	2
Bachelor's degree	6	8	14	3	3	6
Post-Bachelor's degree	0	6	6	2	5	7
Household size						
1	3	2	5	3	0	3
2	7	7	14	4	5	9
3	2	6	8	2	5	7
4+	3	8	11	1	4	5
Mail-handling behavior						
Self only	—	9	9	—	9	9
Self and others	—	14	14	—	5	5

¹⁸ One participant in Round 2 did not answer this question.

5.1.4 Data Collection

The cognitive interviews were designed to test the questions we developed after the focus groups. Some of these questions were existing questions from the CE or other surveys that we edited; others were new questions. The goal of the cognitive interviews was to help researchers decide which questions should continue into field testing for possible implementation as optional, follow-up questions. In particular, we wanted to learn more about how participants understood the questions, what they thought about when deciding how to answer them, and whether adequate response options were provided for participants.

Prior to the cognitive interview, we confirmed that prior ACS respondents had completed the ACS. New cognitive interview participants assigned to the paper mode were mailed a paper questionnaire and asked to complete it within a few days of receiving the survey, while new cognitive interview participants assigned to the CATI mode were administered the ACS over the telephone by a researcher. They were eligible to come in for a cognitive interview once the ACS questionnaire had been completed. New participants who completed the paper questionnaire were asked to bring the completed form to the interview.

Upon arrival to the cognitive interview, participants were told that the purpose of the interview was to test new questions under consideration for the ACS (see Appendix 8.2). Participants were also given a consent form to sign and were told that information they provided would be kept confidential, that the interview would be audio-recorded, and that the interview was being observed, when applicable. After participants signed the consent form, cognitive interviewers again confirmed that participants had completed the ACS prior to the interview. If not, they were asked to complete it at that time.¹⁹ Participants were trained to verbalize their thoughts, or “think aloud,” during the cognitive interview (Willis 2015).

5.1.4.1 Round 1

Participants answered burden questions on 1) length of survey response, 2) overall burden, 3) number of contact attempts, 4) appropriateness of contacts, 5) level of effort put forth in responding to the ACS, 6) whether length of survey response met participants’ expectations, 7) difficulty answering ACS questions, and 8) perceptions of whether the ACS invaded their privacy, in that order (see Figure 7; Appendix 8.2.1). As in the focus groups, the overall burden question was asked early in the series in order to avoid priming participants as to what factors they should consider when assessing overall burden.

Half of the participants saw an overall burden question with the word “burdensome” (version A) and half saw the question with the word “hassle” (version B). Only prior ACS respondents answered burden questions about the number of contact attempts and appropriateness of the contacts, since new participants had not experienced the ACS contact strategy. Questions were administered in the mode that most closely matched participants’ mode of ACS response.

¹⁹ Two new participants did not receive the survey in the mail and therefore completed the ACS in-person as part of the cognitive interview.

Participants who took the ACS on paper or internet answered survey questions on paper, while participants who took the ACS by CATI answered survey questions by CAPI.²⁰

Probing was conducted retrospectively for all items except for the overall burden questions. We probed on the overall burden question concurrently because we wanted to get participants' immediate reactions on the burden of the survey before they answered the remaining questions. We also wanted to know what characteristics contributed to overall burden perceptions in order to guide burden question selection for the second round of testing.

After probing on the overall burden question, we asked participants to complete a card sort activity. Participants sorted cards with activities (e.g., cleaning, voting, paying bills; see Appendix 8.2.1) into burden or hassle categories, based on which version of the question they had just answered. For example, participants who answered version A of the overall burden question sorted these cards into the categories of not at all burdensome, a little burdensome, moderately burdensome, and very burdensome. One of the cards had "the American Community Survey" on it. We selected a mix of activities, some of which we expected to be seen as burdensome/a hassle (e.g., doing taxes) and others we did not expect to be burdensome/a hassle (e.g., watching TV). The card sort allowed us to see how participants perceived the overall burden of the ACS relative to other kinds of activities. After completing the card sort, participants answered the other version of the overall burden question they had not yet seen and completed a similar card sort for that burden question. Because each participant did two card sorts (one for the word "burdensome" and one for the word "hassle"), we were also able to further compare participants' interpretation of these words. Participants were not aware we were making this cross-card sort comparison. Participants then answered the remaining burden questions. We concluded by asking participants some general debriefing questions about the burden questions and their experience with the ACS.

Figure 7. Round 1 Burden Questions (Self-Administered)

Please indicate how much time it took you to complete this survey, not counting interruptions.
_____ minutes

We would like to get feedback on your involvement in this survey as a whole, from the first time you were contacted for the survey until now.

Overall Burden Version A:

How burdensome was the American Community Survey for you?

- ☐ *Not at all burdensome*
- ☐ *A little burdensome*
- ☐ *Moderately burdensome*

²⁰ We asked all participants to answer the question about length of survey response on paper because it would ideally only be administered on paper in the production ACS.

- *Very burdensome*

Overall Burden Version B:

How much of a hassle was the American Community Survey for you?

- *Not at all a hassle*
- *A little bit of a hassle*
- *Somewhat of a hassle*
- *Very much a hassle*

Do you feel that the number of times you were contacted for the American Community Survey was not enough, just the right amount, a little too much, or way too much?

- *Not enough*
- *Just the right amount*
- *A little too much*
- *Way too much*

Thinking about the times you were contacted for the American Community Survey, would you say the contacts were very appropriate, somewhat appropriate, somewhat inappropriate, or very inappropriate?

- *Very appropriate*
- *Somewhat appropriate*
- *Somewhat inappropriate*
- *Very inappropriate*

How much effort did you put into answering the American Community Survey?

- *A little bit to no effort*
- *A moderate amount of effort*
- *A lot of effort*

Do you feel that the time it took you to complete the American Community Survey was less than you expected, about what you expected, or more than you expected?

- *Less than I expected*
- *About what I expected*
- *More than I expected*

How easy or difficult was it to answer the American Community Survey questions?

- *Very easy*
- *Somewhat easy*
- *Somewhat difficult*
- *Very difficult*

Would you say that the American Community Survey invades or respects your privacy?

- *Invades my privacy (SKIP TO A)*
- *Respects my privacy (SKIP TO B)*

A. *Would you say it is very invasive, or somewhat invasive?*

- *Very invasive*
 - *Somewhat invasive*
- B. *Would you say it is very respectful, or somewhat respectful?*
- *Very respectful*
 - *Somewhat respectful*

5.1.4.2 Round 2

In the second round of testing, participants answered burden questions on 1) length of survey response, 2) overall burden, 3) level of effort, and 4) privacy, in that order (see Figure 8; Appendix 8.2.2). These questions were further refined and tested based on findings from Round 1 (see Section 5.2). As in the first round, half of the participants saw an overall burden question with the word “burdensome” (version A) and half saw the question with the word “hassle” (version B). Burden questions were administered in the mode that matched participants’ mode of ACS response; those who completed the ACS on paper answered the burden questions on paper, and prior ACS CAPI respondents answered by CAPI.

Probing was conducted retrospectively for all items. Participants saw the other version of the overall burden question they had not yet seen during this probing. They were not required to answer the alternate overall burden question but many did so anyway. We also conducted a card sort activity at the end of the interview. In the card sort, participants were asked to sort cards with adjectives on them into piles, based on whether or not the cards described their ACS experience. The adjectives were selected to represent a mix of positive, negative, and neutral words (e.g., important, interesting, typical, boring, or annoying; see Appendix 8.2.2). The goal of this activity was to explore complexity in participants’ attitudes towards the ACS, as participants could select both positive and negative words. We concluded by asking participants some general debriefing questions about the burden questions and their experience with the ACS.²¹

Figure 8. Round 2 Burden Questions (Self-Administered)

We would like to get feedback on your involvement in this survey as a whole, from the first time you were contacted for the survey until now.

Please indicate how much time it took you to complete this survey, not counting interruptions.

_____ *minutes*

Version A: How burdensome was the American Community Survey for you?

- *Not at all burdensome*
- *A little burdensome*
- *Somewhat burdensome*
- *Very burdensome*

²¹ A subset of 20 participants also participated in ACS respondent comment/feedback testing after the perceptions of burden protocol was completed (see Katz, Holzberg, and Davis 2019).

Version B: How much of a hassle was the American Community Survey for you?

- *Not at all a hassle*
- *A little bit of a hassle*
- *Somewhat of a hassle*
- *Very much a hassle*

How much effort did it take to answer the American Community Survey?

- *No effort*
- *A little bit of effort*
- *A moderate amount of effort*
- *A lot of effort*

Would you say that the American Community Survey invades, or does not invade your privacy?

- *Invades my privacy → GO TO A*
- *Does not invade my privacy → END*

A. Would you say it is a little invasive, somewhat invasive, or very invasive?

- *A little invasive*
- *Somewhat invasive*
- *Very invasive*

5.1.5 Analysis

After each round of cognitive testing, interviewers completed individual summaries for the interviews they conducted using a standard template. Personally identifiable information (PII) such as names were not included in the summaries and participants were referred to using ID numbers. Summaries included information on participants' general perceptions of the burden of the ACS, answers to individual burden questions and the card sort activities, their thought process behind those answers, and information on whether respondents could understand and answer questions as intended. All summaries were compiled into one document per round to facilitate reading of summaries across participants and themes.

Each researcher reviewed the compiled summary document with the goal of identifying burden questions that best captured participants' perceptions of burden in the ACS. Because it is unlikely that a long series of burden questions could be added to the ACS, priority was given to burden questions that captured multiple types of perceptions or captured unique perceptions that other questions did not. We held consensus meetings to summarize results and agree on a set of recommendations. After the first round of testing, the goal of these meetings was to eliminate burden questions from the first round that did not seem to perform as well as the others. This judgment was made primarily on the basis of whether the burden question seemed to capture a

key element of respondents' burden perceptions, as well as whether the burden question was interpreted by respondents as intended. We also revised burden questions for the second round of cognitive testing based on the findings of the first round. Questions were evaluated similarly after the second round of testing in order to make recommendations for field testing. We aimed to recommend a short series of questions for field testing. The discussion from these meetings and compiled summary documents for each round formed the basis of the cognitive interview findings.

5.2 Findings

In this section, we present question-by-question findings from the cognitive interviews across the two rounds of cognitive testing. We describe burden question changes made between rounds and make recommendations for field testing. Burden question wording shown in this section is for self-response modes; question wording for CAPI administration was very similar and is shown in Appendix 8.3.

5.2.1 Overall Burden

First, we present results on two overall burden questions, one using the word “burdensome” and one using the word “hassle.” In both rounds of cognitive testing, half of the participants answered a question using the word “burdensome” and half answered using the word “hassle”; all participants were then shown the alternate version of the question. We present results from the “burdensome” version first, followed by “hassle”. We make recommendations on an overall burden after discussing both versions of the question.

5.2.1.1 “Burdensome”

This overall burden question was very similar across both rounds of testing. The question stem was identical and only the response options changed.

5.2.1.1.1 Round 1

“How burdensome was the American Community Survey for you?”

- *Not at all burdensome*
- *A little burdensome*
- *Moderately burdensome*
- *Very burdensome*

As in the focus groups, most participants did not find the ACS “very burdensome.” Almost all participants said it was not at all or only a little burdensome (see Table 18). This pattern was similar for both new and prior ACS respondents and across modes of response. However, there appeared to be a slight difference in how participants answered this burden question based on which version of the protocol they were assigned. In protocol A where participants saw this burden question first before the version with the word “hassle,” a few more people said “a little burdensome” than “not at all burdensome”; in protocol B, the reverse was true. This suggested that perhaps a few participants who saw “hassle” first may have viewed “burdensome” as slightly

more negative and therefore adjusted their response to this question downwards (see Section 5.2.1.3 on comparing the overall burden questions for more information).

Table 18. Respondents’ Perceptions of Overall Burden, Round 1 – “Burdensome”

How burdensome was the American Community Survey for you?

Response option	Protocol A (n = 19)	Protocol B (n = 19)	Total (n = 38)
Not at all burdensome	6	10	16
A little burdensome	10	8	18
Moderately burdensome	2	1	3
Very burdensome	1	0	1

When answering this burden question, participants thought about the time required to respond, whether they thought the questions on the survey were difficult, sensitive, or repetitive, and having to look up information in order to respond. A couple of prior ACS respondents talked about the ACS “hanging over their head” as something they had to do. Only a couple of the prior ACS respondents mentioned thinking about being contacted for the survey by mail, telephone, or in person. Some participants who responded by paper or had seen the paper form commented that it looked like it would take longer than it actually did. Otherwise, we did not notice any notable patterns in what different types of participants were thinking about when answering this burden question.

“When I saw the size of the survey, I thought it would take a really long time.”

Other things that participants considered when answering the burden question that were mentioned only once or twice included 1) proxy reporting for other household members, 2) navigating skip patterns on the paper form, 3) responding in a given mode, 4) being interrupted by household members while responding, and for prior ACS participants, 5) verifying the legitimacy of the survey request, and 6) seeing the mandatory message. One participant said responding is a civic duty. Many participants mentioned thinking about more than one aspect of their experience, in some cases summarizing their experience as a whole:

“As far [as] burdensome goes I’d say just a little bit. It’s more time consuming than anything else because it’s very repetitive... I fill in my information, I fill my wife’s information, and I fill in my kids’ information... that part is repetitive. It took me about an hour because I had to look up information but I wouldn’t say it was terrible.”

“The one thing that I found tricky was that I have a roommate right now and I don’t know a lot about his information... but for my portion I didn’t feel like it was an invasion or that it took too long. The questions were fairly easy for me.”

When we asked participants what the word burdensome means to them, the most common synonyms given were difficult, bothersome, time-consuming, effortful, annoying, stressful, and

out-of-the-ordinary. One new participant commented that burdensome is a strong word. A few people in version B of the protocol who saw the word “hassle” first said that burdensome means the same thing as hassle.

Overall, this burden question seemed to perform well. Participants understood the question and were able to answer it. This burden question also worked as intended in making participants think about their experience as a whole. We decided to test it further in the second round of cognitive interviews in order to compare it to the version with the word hassle, with a change to one of the response options. While we did not observe any issues with participants interpreting the word “moderately,” we decided to change “moderately burdensome” back to “somewhat burdensome” to better align with the hassle question and to use plain-language terminology.

5.2.1.1.2 Round 2

“How burdensome was the American Community Survey for you?”

- *Not at all burdensome*
- *A little burdensome*
- *Somewhat burdensome*
- *Very burdensome”*

As in the first round of testing, most participants said the ACS was not at all or only a little burdensome (see Table 19). We did not see any differences in responses by participant type or response mode, but there seemed to be a slight protocol version difference as in the first round of testing. In protocol B where respondents saw the version with the word “hassle” before this one, most people said the ACS was not at all burdensome. This suggested that perhaps a few participants who saw “hassle” first viewed “burdensome” as slightly more negative and therefore adjusted their response to this burden question downwards (see Section 5.2.1.3 on comparing the overall burden questions for more information).

Table 19. Respondents’ Perceptions of Overall Burden, Round 2 – “Burdensome”

How burdensome was the American Community Survey for you?

Response option	Protocol A (n = 12)	Protocol B (n = 12) ²²	Total (n = 23)
Not at all burdensome	4	8	12
A little burdensome	3	3	6
Moderately burdensome	3	0	3
Very burdensome	2	0	2

When we asked participants how they came up with their answer to this burden question, the responses were very similar to the ones we received in the first round of cognitive testing. Participants thought about the sensitivity, difficulty, and repetition of the ACS questions, general

²² One participant who saw this burden question second chose to leave it blank.

topics asked about on the questionnaire, needing to look up information, navigating the paper questionnaire (for paper respondents), and the time it took them to complete the ACS.

“It wasn’t too bad of a survey to do but it was a whole lot of the same questions.”

“It really did not take that much time to complete.”

As we saw in the first round of cognitive testing, participants tended to think of more than one aspect of their experience. However, no prior ACS paper participants commented on the contacts they received. A couple of prior ACS CAPI respondents talked about figuring out what the request was when they were first interacting with the FR.

“[I was figuring out] ‘why are you bothering me?’ [And then I realized] okay, [the FR] needed help.”

A couple of prior ACS respondents mentioned thinking about how the data was going to be used:

“Of course it’s not a problem. The government has to know how many [people] there are in order to allocate funding.”

“[I wondered] what really was the purpose of this?”

Participants said that synonyms for the word burdensome include: difficult, challenging, requiring effort, annoying, time-consuming, demanding, inconvenient, and “a weight on your shoulders”. These were very similar to the synonyms given in the first round of cognitive testing. As we also saw in the first round of testing, a few participants who saw “hassle” first said that burdensome means the same thing as hassle.

In order to make a recommendation on this burden question for field testing, we considered these findings as well as feedback from participants on how this version of the burden question compared to the one using the word hassle. We describe our recommendation in Section 5.2.1.3.

5.2.1.2 “Hassle”

This question remained unchanged over the two rounds of cognitive testing.

5.2.1.2.1 Round 1

“How much of a hassle was the American Community Survey for you?”

- *Not at all a hassle*
- *A little bit of a hassle*
- *Somewhat of a hassle*
- *Very much a hassle”*

Most of the participants in the first round of testing said the ACS was not at all a hassle or a little bit of a hassle (see Table 20). We did not notice any differences in how participants answered this burden question based on their respondent type, response mode, or protocol version.

Table 20. Respondents’ Perceptions of Overall Burden, Round 1 – “Hassle”

How much of a hassle was the American Community Survey for you?

Response option	Frequency (n = 38)
Not at all a hassle	13
A little bit of a hassle	20
Somewhat of a hassle	5
Very much a hassle	0

When we asked participants what they were thinking about when answering this burden question, participants mentioned the survey questions and needing to look up information. A few participants discussed the amount of time it took them to complete the ACS; there were also comments about the timing of the request in their lives and needing to fit the ACS into their schedules. There were a few comments about considering the mode in which they responded, and messages that indicated response was mandatory (for prior ACS respondents). Participants did not make many comments about the contact attempts they received.

“The survey itself was pretty straightforward. I wasn’t really confused [by] any questions or anything.”

“While I was working on it, I had to ignore other things. A hassle [is something that] interrupts other things.”

“It’s something that has to be done, you [have] to get it done as soon as possible and get it down to the mail[box].”

Some participants also answered this burden question in terms of whether they enjoyed responding or if they found it bothersome or annoying to complete the ACS:

“It didn’t bother me at all to do it.”

“It was an annoyance.”

As they did for the word “burdensome,” participants said that something that is a hassle is time-consuming, effortful, inconvenient, and difficult. However, participants seemed to mention synonyms with the connotation of being a “pain” more often for hassle than they did for burdensome, such as annoying, irritating, etc. A couple of people who saw the “hassle” question first said that hassle means the same thing as burdensome.

Overall, this burden question also seemed to perform well since participants understood it and were able to answer it. Like the other version of the overall burden question, this burden question succeeded in making participants think about their experience as a whole. We decided to test the question in the second round of cognitive interviews in order to further compare it with the version using the word burdensome. No changes were made to the wording of the question.

5.2.1.2.2 Round 2

“How much of a hassle was the American Community Survey for you?”

- *Not at all a hassle*
- *A little bit of a hassle*
- *Somewhat of a hassle*
- *Very much a hassle”*

As in the first round of testing, most participants said the ACS was either not at all a hassle or a little bit of a hassle (see Table 21). We did not observe differences based on protocol version or response mode, but new participants seemed to evaluate the ACS as being slightly more of a hassle than prior ACS respondents did.

Table 21. Respondents’ Perceptions of Overall Burden, Round 2 – “Hassle”

How much of a hassle was the American Community Survey for you?

Response option	Frequency (n = 24)²³
Not at all a hassle	13
A little bit of a hassle	6
Somewhat of a hassle	2
Very much a hassle	0

Similar to the first round of cognitive testing, participants most commonly answered this burden question based on the time it took them to complete the ACS, the difficulty of the questions, needing to look up information in order to respond, and the timing of the request in their lives:

“It was nice, quick, and easy.”

“I believe I did have to look up a couple things so I wasn’t able to do everything off the top of my head. There was one question that was a tiny bit unclear so I’ll say ‘a little bit of a hassle.’”

“It took a while.”

Generally, responses were similar to comments made in this round of testing about whether the ACS is burdensome; a few participants explicitly said that hassle means the same thing as

²³ Three participants who saw this burden question second chose to leave it blank.

burdensome. Words and phrases that participants identified as meaning the same thing as hassle included bothersome, time-intensive, difficult, confusing, and requiring effort.

In order to make a recommendation on this burden question for field testing, we considered these findings as well as feedback from participants on how this version of the burden question compared to the one using the word burdensome. We describe our recommendation below.

5.2.1.3 Comparing the overall burden questions

Some people commented on how the two versions of the overall burden questions were similar or different spontaneously, but we also asked probing questions to participants about how the two burden questions compared. In the first round of testing, we also compared how participants sorted activity cards across the two independent “burdensome” and “hassle” card sorts. When participants sorted the same activity cards into comparable categories across the two card sorts (e.g., putting “doing taxes” under both “very burdensome” and “very much a hassle”), we interpreted this as evidence that these words meant the same thing to them. On the other hand, when participants put the same activity cards into different categories across the two card sorts (e.g., putting “commuting” as “not at all burdensome” and “somewhat of a hassle”), we interpreted this as evidence that these words did *not* mean the same thing to them.

In both rounds, we asked probing questions of participants to learn more about their perceptions of the ACS experience. The goal of these probes was to gather additional feedback on words other than “burdensome” or “hassle” that could potentially be used in an overall burden question. In the first round of testing, we asked participants to give us words and phrases that described their experience. In the second round of testing, we conducted a card sort activity with participants in which they were asked to sort cards with adjectives on them into two piles: words that describe the ACS, and words that do not describe the ACS.

5.2.1.3.1 Round 1

In the first round of testing, 24 of 38 participants answered the two overall burden questions the same way. Thirteen of the remaining 14 participants differed by one response option between the two burden questions; one participant differed by two response options. About half of these participants said that ACS was more of a burden than a hassle and about half of participants said the opposite.

When asked whether they saw a difference between the two burden questions, responses were somewhat mixed, with about a third of participants saying they were the same and two-thirds participants saying they were different. These participants distinguished them by saying “burdensome” described an obligation, time, effort, and something that might “weigh” on a person. On the other hand, participants said “hassle” described something being annoying or a pain. Most of these participants said that burdensome is a stronger word than hassle, though a few participants indicated they thought the opposite to be the case. A couple of participants said that burdensome seemed more formal and appropriate for the government. Participants’

responses were mixed to probing questions about whether one was easier to answer, though some people said that hassle was a more familiar word to them.

We also conducted two card sort exercises in this round of cognitive testing to gather more information about how participants perceived the words “burdensome” and “hassle” generally and not just in the context of the ACS. Participants sorted activities (e.g., cleaning, voting, paying bills; see Appendix 8.2.1) into the categories of the overall burden question they had just answered. Overall, participants sorted activities the same way between the two card sorts regardless of the order in which they completed them, further supporting that participants seemed to interpret the two words similarly.

When asked what other words or phrases would describe their ACS experience, most people did not provide specific words, but instead just recounted their experience in narrative format. These comments tended to echo what we heard in the focus groups. Therefore, this did not provide any clear suggestions on alternative words that could be used other than burdensome or hassle.

“It’s pretty much just a survey.”

“It looked long...once I completed it, I thought it was not bad.”

“I mean, it was straightforward. A little annoying. Then, it was repetitive.”

5.2.1.3.2 Round 2

In the second round of testing, participants were only instructed to answer the first overall burden question, as the other version was shown during probing. However, 20 of the 24 participants answered both burden questions anyway. Of these 20 participants who answered both burden questions, 15 answered them the same way, and four differed by just one response option between “not at all” and “a little.” There was no clear pattern in the direction of the responses for these four participants; some viewed the ACS as more of a hassle and less burdensome, while others viewed it as less of a hassle and more burdensome. One new participant said the ACS was not at all a hassle but very burdensome; this seemed to be because he interpreted a hassle as being something involuntary and he had volunteered to take the survey as part of the cognitive testing project.

In response to probes about whether the burden questions were different, nearly equal numbers of participants said that 1) they were different, 2) they were very similar, and 3) they were identical, suggesting most participants view burdensome and hassle similarly. Participants who said the two words were different tended to say that burdensome is a “heavier” word, but also more appropriate in a government survey setting, as others mentioned in the first round of testing. Some of them viewed hassle as being too informal and having the connotation of “bugging” them. There were a few participants that liked hassle more because they thought it was a more familiar term.

“Hassle is used more so in everyday language.”

“I feel like ‘burdensome’ sounds more politically correct. ‘Hassle’ sounds like, ‘I’m trying to bug you and get something out of you.’”

When we asked participants which version of the burden question was easier to answer, participants were almost evenly divided, though hassle had a slight edge. Overall, burdensome and hassle were also interpreted as being similar in the second round of testing.

“They are very close in terms of sentiment.”

In the card sort, participants were asked to sort cards with adjectives on them into piles based on whether or not the cards described their ACS experience. This exercise was an opportunity to explore complexity in participants’ attitudes towards the ACS. Participants selected an average of 15 cards (median = 16 cards). Participants chose a variety of positive, neutral, and negative words. Only one participant selected more negative cards than positive/neutral cards. Of the remaining 23 participants, eight selected an equal number of positive/neutral and negative words. The remaining participants selected more positive/neutral than negative words. Overall, across all participants, words with a positive or neutral connotation were selected most frequently (see Table 22). Some of the most frequently selected words had been mentioned previously by participants as synonyms for “burdensome” or “hassle”; others were used in burden questions administered in the focus groups or the first round of cognitive testing.

Table 22. Round 2 Card Sort Results

Card	Number of times selected
Important	23
Appropriate	23
Useful	21
Valuable	21
Reasonable	21
Tolerable	21
Necessary	21
Personal	20
Normal	20
Easy	18
Fine	18
Good	18
Interesting	17
Standard	17
Typical	13
Time-consuming	12
Rewarding	11
Motivating	7

Annoying	7
Boring	7
Inconvenient	6
Bothersome	5
Difficult	5
Inappropriate	4

5.2.1.4 Recommendation

Overall, participants were able to understand and answer both versions of the overall burden questions across the two rounds of testing, and many participants answered the two burden questions similarly. We did not observe any evidence that use of the word burdensome or hassle primed participants to increase their perceptions of burden, but each word has advantages and disadvantages. The word “burdensome” was viewed as more appropriate and as having a stronger negative connotation by some participants; “hassle” was a word that was more familiar and also seemed to have the connotation of being something annoying. We note that there were a couple of non-native English speaker participants in the focus groups who did not know what the word burdensome meant.

We agreed with participants’ assessment that the word hassle seems informal in the setting of the ACS. While the word burdensome was seen as stronger than hassle, we did not think this is necessarily a major concern. Other surveys using an overall burden question with the word “burdensome” have still found meaningful differentiation in response options (e.g., Dahlhamer et al. 2019; Yan, Fricker, and Tsai 2020), and a stronger word may actually be more useful for identifying respondents whose burden perceptions are of particular concern to the ACS. Using the word “burdensome” would also allow the ACS to compare perceptions to other federal surveys using similar measures.

In this round of testing, the third category was changed from “moderately burdensome” to “a little burdensome.” We did not notice any issues with interpretation of this new response category and recommend moving forward with it since “somewhat” is a lower register word.

We therefore recommend using the “burdensome” version of the overall burden question tested in round 2 in field testing:

“How burdensome was the American Community Survey for you?”

- *Not at all burdensome*
- *A little burdensome*
- *Somewhat burdensome*
- *Very burdensome”*

However, in future testing, we recommend comparing the responses to this overall burden question to responses on other burden questions (such as effort and privacy concerns, see Section 5.2.2). If respondents’ answers to an overall burden question and these more specific

burden questions are correlated, it may be feasible to drop the overall burden question. The specific burden questions use more familiar plain language than “burdensome” and do not have the same as informality as the word “hassle.” Therefore, they may be a better choice.

5.2.2 Survey Characteristics

In the following section, we describe results from the remaining questions tested to assess perceptions of burden. These burden questions were focused on specific survey characteristics identified in the focus groups as being salient to participants and contributing to their overall perceptions of burden. This included burden questions on length, level of effort put into responding to the ACS, and perceptions of whether the ACS invaded their privacy across both rounds of testing, as well as burden questions about whether length of survey response met participants’ expectations, difficulty answering ACS questions, number of contact attempts, and appropriateness of contacts in the first round of testing.

5.2.2.1 Length of survey response

In both the first and second rounds of cognitive testing, participants were asked to answer the following burden question:

*“Please indicate how much time it took you to complete this survey, not counting interruptions.
_____ minutes”*

While all cognitive interview participants were asked to answer this burden question, it may only be needed on the ACS paper questionnaire in the production setting. Automatic timestamps could be collected from internet and CAPI respondents in lieu of a self-report.

5.2.2.1.1 Round 1

Roughly equal numbers of participants reported it took under 30 minutes or between 31-45 minutes to complete the ACS. Four people reported response times between 46-60 minutes (e.g., “50 minutes,” “60 minutes”), most of whom were new CATI participants. Two participants said it took them over an hour (“70 minutes” and “2 hours”), both of whom were prior ACS respondents. One responded online and one responded on paper. Participants did not mention reading or being given an estimate of how long the ACS would take ahead of time.²⁴

Participants were not always exactly sure of the correct answer to this burden question because they could not remember, but they were generally able to give an answer. Two participants gave a range for their answer (e.g., “10-15 minutes”). It is possible that an inability to remember would be less of a factor if this burden question were to be implemented on the production ACS, since ACS respondents would answer it immediately after completing the survey. We did not observe any other issues with this burden question and thus left it unchanged for the second round of cognitive testing.

²⁴ One participant did not provide an answer for this question.

5.2.2.1.2 Round 2

Similarly to the first round of testing, roughly equal numbers of participants reported it took them under 30 minutes and between 31-45 minutes. In this round no participants reported taking between 46-60 minutes, but several participants said it took them more than an hour to complete the ACS. All three of the prior ACS CAPI respondents said it took at least 40 minutes, reporting “40-60,” 50, and 60 minutes. Two of the participants who said it took them over an hour said they took the ACS twice; one was a new participant who lost his first paper questionnaire, and the other was a prior ACS CAPI participant who said she did it online as well as with an FR. They seemed to have added both response times together. A couple of participants who reported spending more than an hour completing the ACS reported this time in hours instead of minutes.

Participants’ comments indicated they were uncertain about their answers, similar to the first round of testing. One prior ACS respondent said it was particularly difficult for them to answer because they answered it gradually over three different days. A couple of participants skipped this burden question and came back to it after answering the other questions in the subjective burden series because they wanted to think about their answer. As in the first round of testing, no participants mentioned knowing how long the ACS would take before completing the survey.

5.2.2.1.3 Recommendation

We recommend field testing this burden question on the paper form of the ACS only, since automatic timestamps could potentially be collected from other response modes. In order to decrease the number of people giving a range of time, we suggest using dentils for the response box. Dentils are currently used in the ACS questionnaire for numeric questions.

*“Please indicate how much time it took you to complete this survey, not counting interruptions.
□□□ minutes”*

While cognitive interview participants could not always recall the exact answer to this burden question (in many cases because of the passage of time), they were able to provide an estimate of how long it took them, and we did not observe any other issues. Responses to this burden question can be used in conjunction with automatic timestamps for the internet and CAPI response modes as a measure of objective burden in the ACS. Researchers could also potentially study the interaction of response time with other subjective measures of burden.

5.2.2.2 Whether length of survey response met participants’ expectations

“Do you feel that the time it took you to complete the American Community Survey was less than you expected, about what you expected, or more than you expected?”

- *Less than I expected*
- *About what I expected*
- *More than I expected”*

Participants’ responses to the burden question about how the length of the ACS matched their expectations varied. Most participants said it took about what they expected or that it was more

than expected (see Table 23). No participants who completed the ACS by CATI said the survey took less time than they expected; there were also more prior ACS respondents who said it took them less time than they expected compared to new participants. Participants' perceptions may have been affected by how salient the time estimate given ahead of time was to them. All new participants in both the CATI and paper modes were told that the questionnaire would take approximately 30-45 minutes to complete. On the other hand, prior ACS paper and internet respondents would have needed to have read the fine print on the back page of the paper questionnaire or the first page of the internet instrument to find this information.

Table 23. Respondents' Perceptions of Survey Length, Round 1

Do you feel that the time it took you to complete the American Community Survey was less than you expected, about what you expected, or more than you expected?

Response option	Frequency (n = 37)
Less than I expected	7
About what I expected	13
More than I expected	17

While some participants answered based on their own general perceptions, many participants (both prior ACS and new) came up with their answer to this burden question by explicitly comparing how long they were told the ACS would take to how long it actually took them to complete the survey (e.g., they were told or read that it would take 40 minutes and it only took 15 minutes).

"I did it in about 25 minutes. My expectation was that it was going to take me 30 minutes."

One participant who said that it took less time than they expected said that it was not as long as it seemed it would be based on the length of the paper questionnaire. A prior ACS respondent who said it took less time than they expected commented that the first page of the internet instrument "said it was going to take so much time."

A few participants thought about prior experiences with the decennial census or other surveys. Other participants commented that the questions on the survey were more personal or repetitive than they expected, and two new participants said they were surprised that they had to answer about other members of their household.

"I didn't expect so many questions and I didn't expect so many detailed questions."

There were also a couple of participants who said they did not have any expectations about how long it would take prior to completing the survey and thus were not sure how to answer the question. These were prior ACS respondents who did not report seeing an estimate of how long it would take ahead of time.

While most participants were able to understand and answer this burden question, we decided not to include it in further testing for several reasons. First, some participants who could remember being given a time estimate ahead of time approached this burden question as if it were asking for an objective response and attempted to calculate the difference between their actual response time and the response time estimate they were given. This approach does not give insight into respondents' subjective perceptions of burden. Additionally, this burden question is narrow in scope, and thus may not be as informative in terms of assessing burden as other questions are when space for burden questions is limited. Many participants had already thought about how long it took them to complete the ACS when answering the overall burden question, so this aspect of their experience would be captured there. If in the future there is specific interest in learning more about how participants perceive the length of the ACS, using a version of this burden question may be feasible.

5.2.2.3 Question difficulty

“How easy or difficult was it to answer the American Community Survey questions?”

- *Very easy*
- *Somewhat easy*
- *Somewhat difficult*
- *Very difficult*

In Round 1, most participants said it was very or somewhat easy to answer the ACS (see Table 24). There were no differences in responses to this question by respondent type. Participants who completed the ACS in a self-administered mode said it was “somewhat easy” more often, and participants completing the ACS by CATI said it was “very easy” more often.

Table 24. Respondents' Perceptions of Question Difficulty, Round 1

How easy or difficult was it to answer the American Community Survey questions?

Response option	Frequency (n = 38)²⁵
Very easy	13
Somewhat easy	18
Somewhat difficult	5
Very difficult	1

When answering this burden question, participants were considering whether there were ACS questions for which they did not know the answer. In a couple of instances, participants also thought about needing to look up information in order to respond. Some participants said that they did not find any specific questions to be difficult, but most said the survey was generally easy with the exception of a few difficult questions. Specific questions identified as difficult by several participants each included income/other financial information and utilities such as heating/electricity. One participant said it was hard to know about the heating for his home

²⁵ One participant did not provide an answer for this question.

because he rents. A few participants also said they had to take their time responding in order to do so correctly.

“They were pretty much easy.”

“You just have to make sure you are reading the questions carefully.”

“The majority of questions were very easy but there were some questions that were a little more difficult.”

Questions about employment, dates of birth, and ethnicity also came up as difficult to answer once each, sometimes in the context of proxy reporting. A few participants also commented that it was generally difficult to proxy report on behalf of other household members such as roommates:

“I don’t know if it’s unique to my situation or not but there were a lot of questions I couldn’t answer... about my living partners.”

There were also a couple participants who seemed to think about the sensitivity of ACS questions instead of difficulty.

While most participants were able to understand and answer this burden question, we decided not to include the question in further testing because of its narrow scope. It may not be as informative in terms of assessing burden as other questions are when space for burden questions is limited. Many participants had already thought about the difficulty of ACS questions when answering the overall burden questions and answered the questions similarly, so this aspect of their experience would be captured there. Question difficulty also came up in responses to the question about level of effort, discussed next. If in the future there is specific interest in learning more about how participants perceive the difficulty of questions on the ACS, using a version of this burden question may be feasible.

5.2.2.4 Level of effort

In the first round of cognitive testing, participants answered a burden question about how much effort they *put* into answering the ACS. In the second round of testing, participants answered a question about how much effort it *took* to answer the ACS. This change was made to reduce the potential for socially desirable responses to this question.

5.2.2.4.1 Round 1

“How much effort did you put into answering the American Community Survey?”

- *A little bit to no effort*
- *A moderate amount of effort*
- *A lot of effort*

Participants' answers to this burden question were diverse, with similar numbers of participants reporting they put a little bit to no effort, a moderate amount of effort, and a lot of effort into answering the ACS (see Table 25). Responses were similar for self-response and interviewer-administered response participants. Slightly more new participants said they put in a lot of effort than prior ACS respondents. It may be that new participants put in more effort when responding because they already knew they were going to participate in a follow-up interview about the survey. New participants could have also been providing socially desirable responses since they knew they would be meeting with the researchers who asked them to complete the survey for the cognitive interview.

Table 25. Respondents' Perceptions of Effort, Round 1

How much effort did you put into answering the American Community Survey?

Response option	Frequency (n = 38) ²⁶
A little bit to no effort	12
A moderate amount of effort	15
A lot of effort	10

Most participants considered how much thought they put into responding and whether they were able to immediately answer the ACS questions. Participants indicated that they tried to answer the questions the best they could. A couple of participants also thought about the amount of time they spent responding. Only one participant said that needing to look up information in order to respond required some effort. When asked how they would define the term "effort," participants said it meant that a task requires time and/or thought to complete it. A few participants said that doing anything requires some level of effort.

"Mental effort in terms of how hard I had to use my brain to answer the questions."

"How much time, energy, thought I had to put into it."

"Applying yourself."

The majority of participants did not volunteer whether they received any help from a household member in order to respond, if they had to look up any information, or if they took any steps to verify the legitimacy of the survey request. We asked probing questions on these topics because we thought they may influence participants' perceptions of effort. Prior ACS participants were evenly divided in whether they checked records or not across both paper and internet response modes. For new participants, slightly more self-response participants said they checked records compared to interviewer-administered response participants. This is not unexpected, as it would be more difficult to pause and consult records while on the telephone with someone than while completing a paper form alone.

²⁶ One participant did not provide an answer for this question.

Most participants did not take any steps to verify the survey's legitimacy; many participants said the materials seemed like what they would expect and that it did not occur to them to question anything. One participant speculated that it would be "stupid" for someone to impersonate the Census Bureau. This was especially true of the new cognitive interview participants who opted into participating in the interviews, though a few of these participants said they would look up the ACS if they had received it out of the blue in the mail. A few prior ACS respondents said they did take steps to verify its legitimacy. One paper prior ACS participant examined the paper questionnaire closely:

"I had been pre-warned that it was coming and they didn't ask anything that I felt like [a scammer would want]; there wasn't anything to use."

Another prior ACS paper respondent said she was suspicious because her neighbors had not received the survey. She noticed a phone number on a postcard mailing and called the number to verify the legitimacy of the request. A prior ACS internet respondent said he asked an interviewer about the legitimacy of the request when he received a phone call because he had not yet responded. Another prior ACS internet respondent searched the survey online to verify it was real.

Only a few participants reported getting help from someone in the household; all of these participants responded by paper and most were new participants. These participants generally asked a household member for answers to questions about themselves (i.e., asking Person 2 for more information on Person 2) because they wanted to be as precise as possible. It is possible that new participants made this extra effort because they knew they were going to do a follow-up interviews about the survey.

Overall, the level of effort burden question was understood and easily answered by participants. Participants made thoughtful comments while thinking aloud and in response to probing questions, and seemed to think about multiple aspects of their experience while responding. Therefore, we wanted to continue to test this burden question in the second round of cognitive interviews. However, we noticed a few things that suggested this burden question should be modified for the second round of testing. We suspected that the question stem could introduce some socially desirable responses, so we rephrased the question stem from asking about how much effort participants "put into" the ACS to how much effort it "took" to answer the ACS. We also modified the response options to separate "no effort" and "a little bit of effort." These options were initially combined because we did not think participants would say they put "no effort" into completing the ACS. However, since we revised the question stem, it seemed more reasonable that participants might say the ACS *took* no effort to complete.

5.2.2.4.2 Round 2

"How much effort did it take to answer the American Community Survey?"

- *No effort*
- *A little bit of effort*
- *A moderate amount of effort*

- *A lot of effort*

In the second round of testing, most participants said that the ACS took a little bit of effort (see Table 26). There were few differences between new and prior ACS respondents other than that no prior ACS respondents said the survey took a moderate amount of effort. We did not observe any differences by mode of response.

Table 26. Respondents' Perceptions of Effort, Round 2

How much effort did it take to answer the American Community Survey?

Response option	Frequency (n = 24)
No effort	4
A little bit of effort	15
A moderate amount of effort	4
A lot of effort	1

Participants reported thinking about the time they spent answering the questionnaire and about how they were trying to answer accurately. As in the first round, participants generally defined effort as having to do with time and the amount of work or thought a task requires:

"I wouldn't say it's an effort to do something like that. It's just reading [to understand], that's all you have to do. You don't have to think a whole lot about what you're going to put down."

"It was a little bit of effort because [there were] a few things I had to think about before I answered."

Responses to the additional probes were also similar to ones given in the first round of testing. Only a few participants reported getting help from someone in the household, most of whom were new paper participants getting information about that household member in order to answer precisely. One participant said he asked his wife where some of the records were stored so he could look up the answers himself. Slightly more participants reported needing to consult records than did in the first round; these participants were evenly divided between prior ACS paper respondents and new paper participants. Examples given of information participants needed to look up included a water bill, a participant's wife's naturalization information, the value of a home, property taxes, dates of birth, and information for roommates.

Only a couple of people indicated taking steps to verify the legitimacy of the ACS; these were prior ACS participants. Two prior ACS paper participants read over the materials closely and one researched the phone number from which they received a phone call. A prior ACS CAPI respondent researched the survey online because she was concerned it was a scam. Other participants felt comfortable responding to the survey:

"I felt comfortable as [the FR] talked and she showed me paperwork."

5.2.2.4.3 Recommendation

This burden question was easily answered by participants. Some participants thought about similar aspects of their ACS experience when answering this question as they did when answering the overall burden question. The wording of this burden question was also straightforward and was easy for participants to understand. For those reasons, we think this question could potentially be used in lieu of a measure of overall burden, though we would recommend conducting a field test in which responses are compared to those for the overall burden question. We recommend field testing this item:

“How much effort did it take to answer the American Community Survey?”

- *No effort*
- *A little bit of effort*
- *A moderate amount of effort*
- *A lot of effort”*

5.2.2.5 Number of contact attempts

This burden question was only asked of prior ACS respondents, because new cognitive interview participants did not receive the typical ACS contact attempts. It also would not have made sense to ask them these questions since new participants contacted the Census Bureau because they were interested in participating, rather than the other way around. A total of 15 paper and internet ACS respondents answered this burden question in the first round of cognitive testing.

“Do you feel that the number of times you were contacted for the American Community Survey was not enough, just the right amount, a little too much, or way too much?”

- *Not enough*
- *Just the right amount*
- *A little too much*
- *Way too much”*

The majority of participants said that the number of contacts they received for the ACS was just the right amount (see Table 27).

Table 27. Respondents’ Perceptions of Number of Contact Attempts, Round 1

Do you feel that the number of times you were contacted for the American Community Survey was not enough, just the right amount, a little too much, or way too much?

Response option	Frequency (n = 15)
Not enough	0
Just the right amount	12
A little too much	3
Way too much	0

Participants reported receiving different numbers of contacts, but the most common response was between one and three pieces of mail. A few participants said they received phone calls, and a couple of people mentioned they received an additional contact after they had already responded. Participants' recall of the number of contact attempts or contact attempt strategy did not seem to affect how they answered the burden question; the few participants who said the contacts they received were a little too much were among those reporting receiving two or three pieces of mail. As in the focus groups, some participants commented that receiving reminders was helpful. Generally, participants did not seem upset about the number of contacts they received.

"I think 'just the right amount' because if they hadn't sent me a [reminder postcard], I wouldn't have even filled it out. It was the right amount for me."

"I felt like maybe the gap was a little too short [between mailings]. On the one hand I might say it's too much and it was annoying to get that but on the other hand it reminded me in a stronger way, 'oh, I have to get that finished.'"

We also asked participants if they would have preferred to have been contacted another way, as we thought it might be possible that being contacted in an undesirable mode could contribute to perceptions of burden. However, we did not find that to be the case. Participants indicated that the mail was a good way to contact them and that they would not have wanted to be contacted in a different way. They said that if they had been contacted through email or the telephone, it may have gotten lost or they may have worried it was a scam.

While most participants were able to understand and answer this burden question, we decided not to include it in further testing. This was primarily because participants did not think very much about the contact attempts they received as contributing to their overall perceptions of ACS burden. Therefore, it did not seem salient enough to warrant a burden question in the limited space available in the ACS. If in the future there is specific interest in learning more about how participants perceive the contact attempts used by the ACS, using a version of this burden question may be feasible.

5.2.2.6 Appropriateness of contacts

As with the question on the number of contact attempts, this burden question was only asked of prior ACS respondents in the first round, because new cognitive interview participants did not receive the typical ACS contact attempts the ACS sample did.

"Thinking about the times you were contacted for the American Community Survey, would you say the contacts were very appropriate, somewhat appropriate, somewhat inappropriate, or very inappropriate?"

- *Very appropriate*
- *Somewhat appropriate*
- *Somewhat inappropriate*

- *Very inappropriate*”

Generally, cognitive interview participants thought that the contacts they received were appropriate (see Table 28).

Table 28. Respondents’ Perceptions of Appropriateness of Contact Attempts, Round 1

Thinking about the times you were contacted for the American Community Survey, would you say the contacts were very appropriate, somewhat appropriate, somewhat inappropriate, or very inappropriate?

Response option	Frequency (n = 15)
Very appropriate	11
Somewhat appropriate	4
Somewhat inappropriate	0
Very inappropriate	0

When we asked participants what the word “appropriate” meant to them in this burden question, they said that it was asking whether the contacts were respectful and also whether they received the appropriate number of contacts, an interpretation which overlaps with the intent of the previous question tested. A couple of people mentioned aspects of the contact attempt messaging, such as that the survey is mandatory and that an FR may visit if they did not respond, but this was infrequent. A few participants talked about this burden question in the context of the questionnaire instead of the contact attempts:

“Should they be asking me certain questions; [do] I think [they] are respectful...”

One participant said she thought this burden question was referring to the time of day she received contacts. Two participants said they found this question strange. One said the Census Bureau has the right to contact her if she legally has to respond, so this seemed irrelevant to her. Another participant did not see how anyone could say the contacts were inappropriate:

“It was just the [mailing]. I don’t see how anything could be inappropriate about that.”

This burden question did not seem to work as intended for all participants, with some participants interpreting it as referring to the questionnaire and others thinking the question was asking about the time of day they received contact attempts. Because of this confusion and also because participants did not think much about the contact attempts as contributing to their overall burden perceptions, we decided not to include it in further testing. If in the future there is specific interest in learning more about how participants perceive the contact attempts used by the ACS, we would recommend using a version of the previous question about number of contact attempts or heavily revising this burden question.

5.2.2.7 Whether the ACS invades people’s privacy

In the first round of cognitive testing, participants first answered a question to get an initial opinion about whether they thought the ACS invaded their privacy, with a follow-up question to assess the strength of that opinion. In the second round of testing, participants answered an initial question and a follow-up was asked only of participants who said the ACS invades their privacy.

5.2.2.7.1 Round 1

“Would you say that the American Community Survey invades or respects your privacy?”

- *Invades my privacy (GO TO A)*
- *Respects my privacy (GO TO B)*

- A. *Would you say it is very invasive, or somewhat invasive?*
 - *Very invasive*
 - *Somewhat invasive*

- B. *Would you say it is very respectful, or somewhat respectful?*
 - *Very respectful*
 - *Somewhat respectful”*

Only a few participants said that they thought the ACS invaded their privacy, most of whom were new ACS participants (see Table 29). Participants who responded by CATI said the ACS was “very respectful”; participants in the other modes were a little more divided between whether it was very or somewhat respectful.

Table 29. Respondents’ Perceptions of Privacy, Round 1

Would you say that the American Community Survey invades or respects your privacy? (If invades: Would you say it is very invasive, or somewhat invasive? If respects: Would you say it is very respectful, or somewhat respectful?)

Response option	Frequency (n = 38) ²⁷
Very invasive	1
Somewhat invasive	4
Somewhat respectful	12
Very respectful	18

All of the participants who thought the ACS invaded their privacy said that the questions were “too personal,” and most specifically cited income and other questions about money. Some people said that not having sufficient justification for asking certain questions is an invasion of

²⁷ Three participants did not provide an answer for this question.

their privacy. Generally, they defined sufficient justification as meaning a clearly defined data use.

Many of the participants who said the ACS was somewhat or very respectful of their privacy could not name any specific question that they felt invaded their privacy or was too personal. Some of these participants said the ACS asked for information that could easily be found online with a simple search so they did not think it invaded their privacy. Interestingly however, several other participants said that it *was* an invasion of privacy to ask for information that could be found elsewhere, perhaps because they viewed it as unnecessary.

Other participants said some of the questions were a little personal, but that the collection of this information on the ACS is for a good cause. Some of the new participants commented on not having to answer every question if they did not want to, which was part of the cognitive interview introduction. These participants seemed to associate this instruction with the questionnaire as well, even though they had not heard this instruction at the time they were completing the questionnaire.

"[The questions were] so generic and harmless."

"I don't mind answering, especially if I know I am answering for the benefit of the U.S. government."

When asked what "respecting your privacy" means in this burden question, participants said it means keeping ACS respondents' information confidential and not asking questions that are too personal. A few people said respecting privacy is the opposite of invading your privacy. When asked what "invading your privacy" means in this burden question, participants tended to again define it as questions that are too personal, "no one's business," and in their opinion have no discernable data use.

"[Invading my privacy is when you] ask me some very personal questions about myself that I wonder why you're asking me and feel as though you've gone too far in asking questions."

Unprompted, some participants made comments about questions not on the ACS that *would* be invasive if they were to be asked on the survey, including Social Security numbers (mentioned several times), sexual orientation, gender identity, whether a respondent loves their spouse, criminal history, and bank account information.

Several participants explicitly stated they thought this burden question was strange or that they felt like they could not answer it. For some of these participants, "respectful" was a strange word to describe a survey; for others, it did not seem like the opposite of invading your privacy and so they were not sure where their answer fit in the response options available. One participant said "[the survey] was just trying to gather information."

“I don’t think it was invasive, but I don’t think the word respectful applies.”

Participants made thoughtful comments while thinking aloud and in response to probing questions and seemed to think about multiple aspects of their experience while responding. While this burden question was problematic for some participants, we wanted to include a revised version of it in the second round of testing because it captures perceptions of sensitivity as well as a unique aspect of ACS respondents’ experience—their broad attitudes about privacy and confidentiality. Instead of using the word “respectful,” which was not always viewed as a true opposite of invading privacy and seemed strange to some participants, we instead reworded the burden question to ask whether they thought the ACS invaded their privacy. Participants who said that the ACS invades their privacy were asked a follow-up question to assess the strength of that attitude.

5.2.2.7.2 Round 2

In the second round of testing, this burden question asked whether the ACS invades or does not invade respondents’ privacy.

“Would you say that the American Community Survey invades, or does not invade your privacy?”

- *Invades my privacy (GO TO A)*
- *Does not invade my privacy (END)*

B. Would you say it is a little invasive, somewhat invasive, or very invasive?

- *A little invasive*
- *Somewhat invasive*
- *Very invasive*

Most participants said that the ACS did not invade their privacy (see Table 30). Participants who said the ACS was invasive were pretty evenly divided between prior ACS and new participants. Like in the first round of testing, those who said it was invasive said that the ACS was too personal.

“It was digging too much.”

Table 30. Respondents’ Perceptions of Privacy, Round 2

**Would you say that the American Community Survey invades, or does not invade your privacy?
(If invades: Would you say it is a little invasive, somewhat invasive, or very invasive?)**

Response option	Frequency (n = 24)
Does not invade my privacy	17
A little invasive	4
Somewhat invasive	1
Very invasive	2

One prior ACS CAPI respondent who said the ACS is very invasive thought that Social Security number was asked and said that it should not be on the survey.²⁸ On the other hand, several other participants mentioned the fact that the ACS does *not* ask for Social Security number as evidence that the survey does not invade their privacy. New participants once again mentioned that they liked that they did not have to answer every question, perhaps because of the introduction used in the cognitive interview protocol.

Like in the first round of cognitive testing, participants said “invading your privacy” means asking personal, “nosy” questions. One participant commented that there are probably some people who think asking for any personal information is an invasion of privacy. When we asked for examples of questions on the ACS that invaded participants’ privacy, questions mentioned were income (mentioned several times), number of people in the household (mentioned several times), employment, age, disability, and marital status. In a few instances, participants thought that questions asked on the ACS, such as marital status, were not on the questionnaire and said that they would be sensitive if they were. This indicated these participants’ memory of the questionnaire was not very strong.

Based on comments that were made during the think aloud and in response to probes in the first round of testing, we suspected that perhaps responses to this burden question might be related to participants’ views of the importance of the ACS more generally. Therefore, in the second round we also asked participants probing questions about whether they thought it was important for the Census Bureau to collect the information on the ACS or if it does not matter. Some participants thought the ACS was important, mentioning data uses and planning purposes similar to what we heard in the focus groups. This included both prior ACS respondents and new participants who had not received any contact materials with messaging on ACS data use.

“For education...it can help you determine what this community needs.”

“What the people are like in the country, who we are as a people.”

“It matters. I just wish Congress would listen to it so federal funding would go to the right place.”

A smaller number of participants said that some of it was important, but they were not sure why every question was asked. It seemed as though most of the participants who said the ACS was invasive were not sure about how the data would be used or why it is collected.

“I guess they use it for demographics. It’s okay.”

“Without question, a lot of the information is important. Whether all of it is, I’m not sure.”

²⁸ The ACS does not ask for respondents’ Social Security number.

Only one participant said she did not think the ACS was important; this was the participant who said the ACS was very invasive. She said that she felt like the survey was asking for a lot of information that was not going to be used.

5.2.2.7.3 Recommendation

The version of this burden question tested in the second round performed better than the first round version did. Participants were able to understand and answer it. The burden question captured perceptions of the sensitivity of the questions, and for some participants, broader attitudes about privacy and the ACS in general. We also did not see any evidence that participants were primed by the wording of this burden question to think of the ACS as invasive in either round. We recommend field testing this item to see if it provides additional insight into perceptions of the ACS not covered by the overall burden and effort questions:

“Would you say that the American Community Survey invades, or does not invade your privacy?”

- *Invades my privacy (GO TO A)*
- *Does not invade my privacy (END)*

C. Would you say it is a little invasive, somewhat invasive, or very invasive?

- *A little invasive*
- *Somewhat invasive*
- *Very invasive”*

5.3 Conclusion

Overall, the majority of the burden questions tested performed well in that participants were able to understand and answer them. In a few instances, revisions to burden questions that were problematic in the first round of cognitive testing seemed to make the questions perform more successfully in the second round of testing. Because of this, it was difficult to make decisions on which burden questions to recommend for field testing based on performance of the question alone. Instead, we made our recommendations based on which burden questions seemed to capture aspects of the ACS experience most salient to participants. We prioritized burden questions that captured multiple types of perceptions or captured unique perceptions that other questions did not. Based on these criteria, we recommend field testing burden questions on response length, overall burden (using the word “burdensome”), effort, and privacy.

- 1) Response length:

“Please indicate how much time it took you to complete this survey, not counting interruptions.

_____ minutes”

- 2) Overall burden:

“How burdensome was the American Community Survey for you?”

- *Not at all burdensome*
- *A little burdensome*
- *Somewhat burdensome*
- *Very burdensome*

3) Effort:

"How much effort did it take to answer the American Community Survey?"

- *No effort*
- *A little bit of effort*
- *A moderate amount of effort*
- *A lot of effort*

4) Privacy:

"Would you say that the American Community Survey invades, or does not invade your privacy?"

- *Invades my privacy (GO TO A)*
- *Does not invade my privacy (END)*

A. Would you say it is a little invasive, somewhat invasive, or very invasive?

- *A little invasive*
- *Somewhat invasive*
- *Very invasive*

If field testing is conducted, researchers should examine the distribution of responses, any available paradata (for internet response), and FR feedback (for CAPI response) in order to determine how these questions perform. This will inform whether all burden questions should continue into further testing or possible implementation, or whether some should be dropped.

6 DISCUSSION

The findings described in this report support Bradburn's (1978) definition of burden as a complicated, multidimensional concept likely to be affected by both survey and respondent characteristics. Participants in this research tended to think of different aspects of the ACS when assessing the overall burden of the survey, though many participants thought about aspects related to the questionnaire and the value of ACS data. Some of the perceptions also seemed to vary by response mode or respondent characteristics such as household size and composition. It was useful to learn that respondents did not think the ACS was like other surveys and therefore effects of over-surveying did not seem as relevant as they might be for other surveys. We also were able to confirm that the mandatory nature of the ACS was salient to respondents and learned that proxy response may be an important understudied component of effort.

Our findings also reinforce the importance of capturing respondents' perceptions, as participants' perceived burden did not always align with their objective burden (for example,

some respondents receiving a small number of contacts from the Census Bureau said they received too many contacts while others who received more did not say they received too many contacts). At the conclusion of this research, we recommended further testing of questions on response length, overall burden (using the word “burdensome”), effort, and privacy, as these questions captured research participants’ broad views towards the survey.

Overall, participants in this research generally did not find the ACS to be burdensome and did not have many suggestions on how the ACS could be made less burdensome. The survey experience did not seem to be particularly memorable, which could further be interpreted as evidence that it may not have much lasting burden for many people. To conclude this report, we describe limitations of the current research and future avenues for continuing to monitor and address any respondent concerns.

6.1 Limitations

However, prior ACS respondents who were amenable to participating in either a focus group or cognitive interview may differ from those who did not want to participate in their experiences with the ACS or in their knowledge, attitudes, and interest about the ACS and the Census Bureau. Additionally, the new participants who had not previously responded to the ACS may not have found the ACS very burdensome because they volunteered to participate in this research. We were unable to learn about perceptions of burden from people who chose not to respond to the ACS.

The time between survey completion and research participation for prior ACS respondents was also typically at least one month or more. While we tried to prioritize participants who had completed the ACS more recently during recruitment, some ACS respondents still had difficulty recalling their experience with the ACS. Similarly, there was a gap in between when respondents completed the ACS questionnaire and when they answered the burden questions. If burden questions were to be administered in production, they would be asked immediately at the end of the questionnaire. It is possible that participants’ perceptions may differ when they are given an opportunity to provide feedback with their experience fresh in their minds.

6.2 Future Research

Research into subjective perceptions of burden is still in its relative infancy, with few household surveys in the United States asking questions on this topic. Because of its complexity and multidimensionality, identifying a short series of questions to capture perceptions can be difficult. Field testing can help narrow down options for the ACS identified through this qualitative research, and will help inform a decision about whether these questions should be implemented on the ACS as optional, follow-up questions. In addition to examining the response distributions to the questions themselves, we recommend looking at the correlations between burden items, using them as predictors in models, and examining whether responses to burden questions differ by respondent characteristics such as age, race, sex, and household size, as well as by mode of response.

This research was conducted with people who responded to the ACS. Therefore, we do not know much about the burden perceptions of people who may be most likely to be burdened—those who never respond at all (Hedlin et al. 2005). In 2018, Census Bureau staff conducted an analysis of complaints received about the ACS (Fox et al. 2018). While this serves as a useful starting point, these complaints only reflect the perceptions of people who proactively reached out to provide their feedback about the survey. Conducting in-depth interviews or other qualitative research with ACS nonrespondents may be a useful next step.

Some participants thought that “burdensome” was an odd or severe term to describe a survey. Participants were still able to understand and answer the question using this word and thought about different aspects of the survey while doing so, and a clearly superior term for a question about overall burden was not identified in this research. Other household surveys using an overall perceived burden question with the word “burdensome” have still found meaningful differentiation in response options (e.g., Dahlhamer et al. 2019; Yan, Fricker, and Tsai 2020), and a more severe word could be more useful for identifying respondents whose burden perceptions are particularly strong. However, future research should continue to explore alternate terms that may be more appropriate, especially as the word “burdensome” was also not well understood by a few respondents who were not native English speakers. To our knowledge, no survey has pretested subjective burden questions in languages other than English. Cognitive testing in languages such as Spanish would provide better insight into potential issues in other languages. While a benefit of the overall perceived burden question is a reduction in the number of subjective burden questions asked, an alternative may be to ask a series of questions teasing out individual effects or asking a question about effort instead.

7 REFERENCES

- Bogen, K. 1996. "The Effect of Questionnaire Length on Response Rates—A Review of the Literature." In Proceedings of the Survey Research Methods Section: American Statistical Association, 1020-5. Available at: http://www.asasrms.org/Proceedings/papers/1996_177.pdf.
- Bradburn, N. 1978. "Respondent burden." In Proceedings of the Survey Research Methods Section: American Statistical Association, 35-40. Available at: http://www.asasrms.org/Proceedings/papers/1978_007.pdf.
- Chappell, G. and S. Obenski. 2014. "Final Report: American Community Survey (ACS) Fiscal Year 2014 Content Review Results." *ACS Information Memoranda Series* Memorandum No. 2014-02. Available at: https://www2.census.gov/programs-surveys/acs/operations_admin/2014_content_review/methods_results_report/2014_ACS_Content_Review_Final_Documentation.pdf.
- Childs, J.H., S. Willson, S.W. Martinez, L. Rasmussen, and M. Wroblewski. 2012. "Development of the Federal Statistical System Public Opinion Survey." Paper presented at the Annual Conference of the American Association for Public Opinion Research, Orlando, Florida, USA. Available at: http://www.asasrms.org/Proceedings/y2012/Files/400242_500695.pdf.
- Cook, C., F. Heath, and R.L. Thompson. 2000. "A Meta-Analysis of Response Rates in Web- or Internet-Based Surveys." *Educational and Psychological Measurement* 60(6): 821-36.
- Crawford, S.D., M. Couper, and M.J. Lamias. 2001. "Web Surveys: Perceptions of Burden." *Social Science Computer Review* 19(2): 146-62.
- Dahlhamer, J., A. Maitland, B. Zablotsky, and A. Galinsky. 2019. "Does Reducing the Length Matter? An Assessment of Respondent Burden with the Redesigned U.S. National Health Interview Survey." Paper presented at the DC-AAPOR Respondent Burden Workshop, Washington, DC, USA. Available at: <http://files.dc-aapor.org/slides/burden2019/Galinsky.pdf>.
- Dale, T., J. Erikson, J. Fosen, G. Haraldsen, J. Jones, and O. Kleven. 2007. "Handbook for Monitoring and Evaluating Business Survey Response Burdens." European Commission, Eurostat. Available at: <https://ec.europa.eu/eurostat/documents/64157/4374310/12-HANDBOOK-FOR-MONITORING-AND-EVALUATING-BUSINESS-SURVEY-RESPONSE-BURDEN.pdf/600e3c6d-8e8d-44f7-a8f5-0931c71d9920>.
- DeMaio, T.J. 1980. "Refusals: Who, Where and Why." *Public Opinion Quarterly* 44(2): 223-33.
- Earp, M.S., B. Kopp, and J. Dixon. 2019. "Exploring the Relationship between Burden Factors and Survey Response." Paper presented at the DC-AAPOR Respondent Burden Workshop, Washington, DC, USA. Available at: <http://files.dc-aapor.org/slides/burden2019/Earp.pdf>.

- Earp, M., S. Fricker, and J. Dixon. 2015. "Respondent Burden: Lessons Learned from a Mixed-Methods Approach to Assessing Measures of Perceived Burden." Paper presented at the Annual Conference of the American Association for Public Opinion Research, Hollywood, Florida, USA.
- Eggers, F.J. 2009. "Streamlining the American Housing Survey." U.S. Department of Housing and Urban Development Office of Policy Development and Research. Available at: https://www.census.gov/content/dam/Census/programs-surveys/ahs/working-papers/Streamlining_AHS.pdf.
- Fox, M., K. Johns, A. Kline, D. Raglin, and R.C. Sawyer. 2018. "Analysis of Complaints Received. 2018 American Community Survey Research and Evaluation Report Memorandum Series #ACS18-RER-08. Available at: https://www.census.gov/library/working-papers/2018/acs/2018_Fox_01.html.
- Fricker, S. 2016. "Defining, Measuring, and Mitigating Respondent Burden." Presented at the Workshop on Respondent Burden in the American Community Survey, Committee on National Statistics, Division of Behavioral and Social Sciences and Education, Washington, DC. Available at: <https://sites.nationalacademies.org/cs/groups/dbassesite/documents/webpage/dbasse173169.pdf>.
- Fricker, S., T. Yan, and S. Tsai. 2014. "Response Burden: What Predicts It and Who is Burdened Out?" Paper presented at the Annual Conference of the American Association for Public Opinion Research, Anaheim, California.
- Fricker, S., C. Kreisler, and L. Tan. 2012. "An exploration of the application of PLS path modeling approach to creating a summary index of respondent burden." In Proceedings of the Survey Research Methods Section of the American Statistical Association, 4141-4155. Available at: <https://www.bls.gov/osmr/research-papers/2012/pdf/st120050.pdf>.
- Fricker, S., J. Gonzalez, and L. Tan. 2011. "Are you burdened? Let's find out." Paper presented at the Annual Conference of the American Association for Public Opinion Research, Phoenix, AZ.
- Galesic, M. and M. Bosnjak. 2009. "Effects of Questionnaire Length on Participation and Indicators of Response Quality in a Web Survey." *Journal of Official Statistics* 73(2): 349-60.
- Galesic, M. 2006. "Dropouts on the Web: Effects of Interest and Burden Experiences During an Online Survey." *Journal of Official Statistics* 22(2): 313-328.
- Giesen, D., M. Bavdaz, and G. Haraldsen. 2011. "Response Burden Measurement: Current Diversity and Proposal for Moving toward Standardization." In Proceedings of the BLUE-ETS Conference on Burden and Motivation in Official Business Surveys, Heerlen, Netherlands, 125-134.

- Goldenberg, K.L., D. McGrath, and L. Tan. 2009. "The Effects of Incentives on the Consumer Expenditure Interview Survey." Paper presented at the Annual Conference of the American Association for Public Opinion Research, Hollywood, FL, USA.
- Gravem, D., Gustav H., and T. Lofgren. 2011. "Response burden trends and consequences." In *Proceedings of the BLUE-ETS Conference on Burden and Motivation in Official Business Surveys*, Heerlen, Netherlands, 221-35.
- Griffin, D.H., E.V. Slud, and C. Erdman. 2015. "Reducing Respondent Burden in the American Community Survey's Computer Assisted Personal Visit Interviewing Operation – Phase 3 Results." *2015 American Community Survey Research and Evaluation Report Memorandum Series #ACS14-RER-28-R1*. Available at: https://www.census.gov/content/dam/Census/library/working-papers/2015/acs/2015_Griffin_01.pdf.
- Griffin, D.H. 2014. "Reducing Respondent Burden in the American Community Survey's Computer Assisted Personal Visit Interviewing Operation – Phase 2 Results." *2014 American Community Survey Research and Evaluation Report Memorandum Series #ACS14-RER-07*. Available at: https://www.census.gov/content/dam/Census/library/working-papers/2014/acs/2014_Griffin_01.pdf.
- Griffin, D.H. and D.V. Nelson. 2014. "Reducing Respondent Burden in the American Community Survey's Computer Assisted Personal Visit Interviewing Operation – Phase 1 Results (Part 2)." *2014 American Community Survey Research and Evaluation Report Memorandum Series #ACS14-RER-22*. Available at: https://www.census.gov/content/dam/Census/library/working-papers/2014/acs/2014_Griffin_02.pdf.
- Griffin, D.H. 2013. "Effect of Changing Call Parameters in the American Community Survey's Computer Assisted Telephone Interviewing Operation." *2013 American Community Survey Research and Evaluation Report Memorandum Series #ACS13-RER-17*. Available at: https://www.census.gov/content/dam/Census/library/working-papers/2013/acs/2013_Griffin_03.pdf.
- Griffin, D.H. and T.R. Hughes. 2013. "Analysis of Alternative Call Parameters in the American Community Survey's Computer Assisted Telephone Interviewing." *2013 American Community Survey Research and Evaluation Report Memorandum Series #ACS13-RER-11*. Available at: https://www.census.gov/content/dam/Census/library/working-papers/2013/acs/2013_Griffin_02.pdf.
- Groves, R.M. and B.A. Harris-Kojetin, eds. 2017a. *Federal Statistics, Multiple Data Sources, and Privacy Protection: Next Steps*. Panel on Improving Federal Statistics for Policy and Social Science Research Using Multiple Data Sources and State-of-the-Art Estimation Methods,

- Committee on National Statistics, Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press.
- Groves, R.M. and B.A. Harris-Kojetin, eds. 2017b. *Innovations in Federal Statistics: Combining Data Sources While Protecting Privacy*. Panel on Improving Federal Statistics for Policy and Social Science Research Using Multiple Data Sources and State-of-the-Art Estimation Methods, Committee on National Statistics, Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press.
- Groves, R.M. 2006. "Nonresponse Rates and Nonresponse Bias in Household Surveys." *Public Opinion Quarterly* 70(5): 646-75.
- Groves, R.M., E. Singer, and A. Corning. 2000. "Leverage-Salience Theory of Survey Participation." *Public Opinion Quarterly* 64: 299-308.
- Groves, R.M., S. Presser, and S. Dipko. 2004. "The Role of Topic Interest in Survey Participation Decisions." *Public Opinion Quarterly* 68(1): 2-31.
- Groves, R.M. and M.P. Couper. 1998. *Nonresponse in Household Surveys*. New York: Wiley and Sons.
- Haraldsen, G. 2004. "Identifying and Reducing Response Burdens in Internet Business Surveys." *Journal of Official Statistics* 20(2): 393-410.
- Heberlein, T.A. and R. Baumgartner. 1978. "Factors Affecting Response Rates to Mailed Questionnaires: A Quantitative Analysis of the Published Literature." *American Sociological Review* 43(4): 447-62.
- Hedlin, D., H. Lindkvist, H. Backstrom, and J. Erikson. 2008. "An Experiment on Perceived Survey Response Burden among Businesses." *Journal of Official Statistics* 24(2): 301-318.
- Hedlin, D., T. Dale, G. Haraldsen, and J. Jones. 2005. "Developing Methods for Assessing Perceived Response Burden." European Commission, Eurostat. Available at: <https://ec.europa.eu/eurostat/documents/64157/4374310/10-DEVELOPING-METHODS-FOR-ASSESSING-PERCEIVED-RESPONSE-BURDEN.pdf/1900efc8-1a07-4482-b3c9-be88ee71df3b>.
- Heimel, S.K., D. Barth, and M. Rabe. 2016. "'Why We Ask' Mail Package Insert Test." 2016 *American Community Survey Research and Evaluation Report Memorandum Series* #ACS16-RER-10. Available at: https://www.census.gov/content/dam/Census/library/working-papers/2016/acs/2016_Heimel_01.pdf.
- Hotchkiss, M. and J. Phelan. 2017. "Uses of Census Bureau Data in Federal Funds Distribution: A New Design for the 21st Century." Available at: <https://www2.census.gov/programs-surveys/decennial/2020/program-management/working-papers/Uses-of-Census-Bureau-Data-in-Federal-Funds-Distribution.pdf>.
- Hughes, T., E. Slud, R. Ashmead, and R. Walsh. 2016. "Results of a Field Pilot to Reduce Respondent Contact Burden in the American Community Survey's Computer Assisted

- Personal Interviewing Operation." *2016 American Community Survey Research and Evaluation Report Memorandum Series #ACS16-RER-07*. Available at: https://www.census.gov/content/dam/Census/library/working-papers/2016/acs/2016_Hughes_01.pdf.
- Jones, C., P. Sheatsley, and A. Stinchcombe. 1979. "Dakota Farmers and Ranchers Evaluate Crop and Livestock Surveys." National Opinion Research Center Report No. 128. Chicago: National Opinion Research Center.
- Jones, J. 2012. "Response Burden: Introductory Overview Lecture." Paper presented at the Fourth Annual International Conference on Establishment Surveys, Montreal, Quebec, Canada.
- Joshiyura, M. 2008. "2005 American Community Survey Respondent Characteristics Evaluation." *DSSD American Community Survey Research and Evaluation Memorandum Series Chapter #ACS-RE-2*. Available at: https://www.census.gov/content/dam/Census/library/working-papers/2008/acs/2008_Joshiyura_01.pdf.
- Kaczmirek, L. 2008. *Human-Survey Interaction Usability and Nonresponse in Online Surveys*. Cologne, Germany: Herbert von Halem Verlag.
- Kaplan, R. and J. Holzberg. 2019. "What Does it Mean to be Burdened? Exploring Subjective Perceptions of Burden." Paper presented at the DC-AAPOR Respondent Burden Workshop, Washington, DC, USA. Available at: <http://files.dc-aapor.org/slides/burden2019/Kaplan.pdf>.
- Kaplan, R. and S. Fricker. 2017. "Objective and Subjective Burden Measures: Which Survey Features and Respondent Characteristics Contribute to Both?" Paper presented at the Annual Conference of the American Association for Public Opinion Research, New Orleans, Louisiana.
- Katz, J., J. Holzberg, and M. Davis. 2019. "Cognitive Pretesting of The American Community Survey (ACS) Respondent Comment/Feedback Item." U.S. Census Bureau Research Report Series *Survey Methodology* #2019-10. Available at: <https://www.census.gov/library/working-papers/2019/adrm/rsm2019-10.html>.
- Kim, Y., J. Dykema, J. Stevenson, P. Black, and D.P. Moberg. 2019. "Straightlining: Overview of Measurement, Comparison of Indicators, and Effects in Mail-Web Mixed-Mode Surveys." *Social Science Computer Review* 37(2): 1-20.
- Krosnick, J.A. 1991. "Response Strategies for Coping with the Cognitive Demands of Attitude Measures in Surveys." *Applied Cognitive Psychology* 5(3): 213-236.
- Kunz, T. and T. Gummer. 2019. "Perceived and Actual Respondent Burden and the Effects on Data Quality in Web Surveys." Paper presented at the European Survey Research Conference, Zagreb, Croatia.

- Laurie, H., and P. Lynn. 2009. "The Use of Respondent Incentives on Longitudinal Surveys." In *Methodology of Longitudinal Surveys*, edited by P. Lynn, 205–33. London: John Wiley and Sons.
- Lee, Y.A. and C. Knappenberger. 2019. "Exploring monetary incentives and respondent burden in the Consumer Expenditure Interview Survey." Paper presented at the DC-AAPOR Respondent Burden Workshop, Washington, DC, USA. Available at: <http://files.dc-aapor.org/slides/burden2019/Lee.pdf>.
- Leeper, T.J. 2019. "Where Have the Respondents Gone? Perhaps We Ate Them All." *Public Opinion Quarterly* 83(S1): 280-288.
- Lepkowski, J.M. and M.P. Couper. 2002. "Nonresponse in the second wave of longitudinal household surveys." In *Survey Nonresponse*, edited by R.M. Groves, D.A. Dillman, J.L. Eltinge, and R.J.A. Little, 259-274. New York: Wiley and Sons.
- Lenzner, T., L. Kaczmirek, and A. Lenzner. 2010. "Cognitive burden of survey questions and response times: A psycholinguistic experiment." *Applied Cognitive Psychology* 24(7): 1003-20.
- Lima, R. 2014. "Italian Methods and Practices Regarding the LFS: Case of Response Rate and Response Burden." *Statistika* 94(3): 80-93.
- Malhotra, N. 2008. "Completion Time and Response Order Effects in Web Surveys." *Public Opinion Quarterly* 72(5): 914-934.
- McCarthy, J.S., D.G. Beckler, and S.M. Qualey. 2006. "An Analysis of the Relationship Between Survey Burden and Nonresponse: If We Bother Them More, Are They Less Cooperative?" *Journal of Official Statistics* 22(1): 97-112.
- McCarthy, J.S. and D.G. Beckler. 2000. "Survey Burden and its Impact on Attitudes toward the Survey Sponsor." Paper presented at the Second Annual International Conference on Establishment Surveys, Buffalo, NY.
- Nichols, E., R. Horwitz, and J.G. Tancreto. 2015. "An Examination of Self-Response for Hard-to-Interview Groups When Offered an Internet Reporting Option for the American Community Survey." *2015 American Community Survey Research and Evaluation Report Memorandum Series Chapter #ACS15-RER-10*. Available at: https://www.census.gov/content/dam/Census/library/working-papers/2015/acs/2015_Nichols_01.pdf.
- Olson, C.A. 2014. "Survey Burden, Response Rates, and the Tragedy of the Commons." *Journal of Continuing Education in the Health Professions* 34(2): 93-95.
- Phipps, P. 2014. "Defining and Measuring Respondent Burden in Establishment Surveys." Paper presented at the Federal Committee on Statistical Methodology (FCSM) Statistical Policy Seminar. Available at: http://www.copafs.org/UserFiles/file/2014fcsfm/11_Phipps_establishment%20survey%20burden_fcsfm_final.pdf.

- Plewes, T.J., ed. 2016. *Reducing Response Burden in the American Community Survey: Proceedings of a Workshop*. Steering Committee for Workshop on Respondent Burden in the American Community Survey, Committee on National Statistics, Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press.
- Presser, S. and S. McCulloch. 2011. "The growth of survey research in the United States: Government-sponsored surveys, 1984-2004." *Social Science Research* 40: 1019-1024.
- Read, B. 2019. "Respondent burden in a Mobile App: evidence from a shopping receipt scanning study." *Survey Research Methods* 13(1): 45-71.
- Redline, C., D. Dillman, A. Dajani, and M.A. Scaggs. 2002. "The Effects of Altering the Design of Branching Instructions on Navigational Performance in Census 2000." U.S. Census Bureau Research Report Series *Survey Methodology* #2002-02. Available at: <https://www.census.gov/srd/papers/pdf/rsm2002-02.pdf>.
- Robins, C., D. Steiger, J. Folz, K. Stein, and M. Stapleton. 2016. "2016 American Community Survey Respondent Burden Testing." *2016 American Community Survey Research and Evaluation Report Memorandum Series* #ACS16-RER-16. Available at: https://www.census.gov/content/dam/Census/library/working-papers/2016/acs/2016_Westat_01.pdf.
- Rolstad, S., J. Adler, and A. Ryden. 2011. "Response Burden and Questionnaire Length: Is Shorter Better? A Review and Meta-analysis." *Value in Health* 14: 1101-08.
- Sawyer, R.C. 2017. "Evaluation of Changes Implemented in the 2016 American Community Survey Internet Instrument." *2017 American Community Survey Research and Evaluation Report Memorandum Series* #ACS17-RER-18. Available at: https://www.census.gov/content/dam/Census/library/working-papers/2017/acs/2017_Sawyer_01.pdf.
- Sharp, L.M. and J. Frankel. 1983. "Respondent Burden: A Test of Some Common Assumptions." *Public Opinion Quarterly* 47(1): 36-53.
- Singer, E. and R.A. Kulka. 2002. "Paying Respondents for Survey Participation." In *Studies of Welfare Populations: Data Collection and Research Issues*, edited by M. Ver Ploeg, R.A. Moffitt, and C.F. Citro, 105-128. Washington, DC: The National Academies Press.
- Tortora, R.D. 2017. "Respondent Burden, Reduction Of." In *Encyclopedia of Statistical Sciences*, edited by S. Kotz, C.B. Read, N. Balakrishnan, B. Vidakovic, and N.L. Johnson. New York: John Wiley and Sons.
- Tourangeau, R., B. Edwards, T.P. Johnson, K.M. Wolter, and N. Bates, eds. 2014. *Hard-to-survey populations*. Cambridge: Cambridge University Press.
- Tourangeau, R. and T. J. Plewes, eds. 2013. *Nonresponse in Social Science Surveys: A Research Agenda*. Panel on a Research Agenda for the Future of Social Science Data Collection,

- Committee on National Statistics, Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press.
- Tourangeau, R. and C. Ye. 2009. "The Framing of the Survey Request and Panel Attrition." *Public Opinion Quarterly* 73(2): 338-48.
- Tourangeau, R., R.M. Groves, C. Kennedy, and T. Yan. 2009. "The Presentation of a Web Survey, Nonresponse and Measurement Error among Members of Web Panel." *Journal of Official Statistics* 25(3): 299-321.
- Tourangeau, R. and T. Yan. 2007. "Sensitive Questions in Surveys." *Psychological Bulletin* 133: 859-883.
- Tourangeau, R., L.J. Rips, and K. Rasinski. 2000. *The Psychology of Survey Response*. New York: Cambridge University Press.
- U.S. Bureau of Labor Statistics. 2017. *Consumer Expenditure Survey Interview Questionnaire (CEQ) – 2017*. Available at: <https://www.bls.gov/cex/capi/2017/2017-CEQ-CAPI-instrument-specifications.pdf>.
- U.S. Census Bureau. 2020. "Agility in Action 3.0: A Snapshot of Enhancements to the American Community Survey." Available at: https://www.census.gov/content/dam/Census/programs-surveys/acs/operations-and-administration/Agility%20in%20Action%203.0_FINAL.pdf.
- U.S. Census Bureau. 2018a. "Agility in Action 2.1: A Snapshot of Enhancements to the American Community Survey." Available at: [https://www.census.gov/content/dam/Census/programs-surveys/acs/operations-and-administration/2015-16-survey-enhancements/Agility in Action V2.1.pdf](https://www.census.gov/content/dam/Census/programs-surveys/acs/operations-and-administration/2015-16-survey-enhancements/Agility_in_Action_V2.1.pdf).
- U.S. Census Bureau. 2018b. American Community Survey Questionnaire. Available at: <https://www2.census.gov/programs-surveys/acs/methodology/questionnaires/2018/quest18.pdf>.
- U.S. Census Bureau. 2017a. "Agility in Action 2.0: A Snapshot of Enhancements to the ACS." Available at: <https://www.census.gov/content/dam/Census/programs-surveys/acs/operations-and-administration/2015-16-survey-enhancements/Agility%20in%20Action%20v2.0.pdf>.
- U.S. Census Bureau. 2017b. *ACS Notification: Change in Methodology for Nonresponse Follow Up Data Collection*. Available at: <https://www.census.gov/programs-surveys/acs/news/updates.2017.html>.
- U.S. Census Bureau. 2016. "Agility in Action 1.2: A Snapshot of Enhancements to the ACS." Available at: [https://www.census.gov/content/dam/Census/programs-surveys/acs/operations-and-administration/2015-16-survey-enhancements/Agility in Action V1.2.pdf](https://www.census.gov/content/dam/Census/programs-surveys/acs/operations-and-administration/2015-16-survey-enhancements/Agility_in_Action_V1.2.pdf).
- U.S. Census Bureau. 2015. "Agility in Action: A Snapshot of Enhancements to the American Community Survey." Available at:

- [https://www.census.gov/content/dam/Census/programs-surveys/acs/operations-and-administration/2015-16-survey-enhancements/Agility in Action V1.1.pdf](https://www.census.gov/content/dam/Census/programs-surveys/acs/operations-and-administration/2015-16-survey-enhancements/Agility_in_Action_V1.1.pdf).
- U.S. Census Bureau. 2014. *American Community Survey Design and Methodology (January 2014)*. Available at: https://www2.census.gov/programs-surveys/acs/methodology/design_and_methodology/acs_design_methodology_report_2014.pdf.
- U.S. Office of Personnel Management (OPM). 2011. *Paperwork Reduction Act (PRA) Guide Version 2.0*. Available at: <https://www.opm.gov/about-us/open-government/digital-government-strategy/fitara/paperwork-reduction-act-guide.pdf>.
- Wenemark, M., G.H. Frisman, T. Svensson, and M. Kristenson. 2010. "Respondent Satisfaction and Burden among Differently Motivated Participants in a Health-Related Survey." *Field Methods* 22(4): 378-390.
- Westra, A., M. Sundukchi, and T. Mattingly. 2015. "Designing a Multipurpose Longitudinal Incentives Experiment for the Survey of Income and Program Participation." In *Proceedings of the 2015 Federal Committee on Statistical Methodology (FCSM) Research Conference*. Available at: https://nces.ed.gov/fcsml/pdf/E3_Westra_2015FCSM.pdf.
- Willis, G.B. 2015. *Analysis of the Cognitive Interview in Questionnaire Design*. New York: Oxford University Press.
- Yammarino, F.J., S.J. Skinner, and T.L. Childers. 1991. "Understanding Mail Survey Response Behavior: A Meta-analysis." *Public Opinion Quarterly* 55: 613-39.
- Yan, T., S. Fricker, and S. Tsai. 2020. "Response Burden: What Is It and What Predicts It?" In *Advances in Questionnaire Design, Development, Evaluation, and Testing*, First Edition, edited by P.C. Beatty, D. Collins, L. Kaye, J. Padilla, G.B. Willis, and A. Wilmot, 193-212. Hoboken, NJ: John Wiley and Sons.
- Yan, T. and D. Williams. 2019. "A Conceptual Framework of Response Burden." Paper presented at the DC-AAPOR Respondent Burden Workshop, Washington, DC, USA. Available at: <http://files.dc-aapor.org/slides/burden2019/Yan.pdf>.
- Yan, T. 2016. "Asking Sensitive Questions in Surveys." Presented at Improving Collection of Indicators of Criminal Justice System Involvement in Population Health Data Programs: A Workshop, Committee on National Statistics, Division of Behavioral and Social Sciences and Education, Washington, DC, USA. Available at: <https://sites.nationalacademies.org/cs/groups/dbassessite/documents/webpage/dbasse171869.pdf>.
- Yan, T., S. Fricker, and S. Tsai. 2016. "Response Burden: What Predicts It and Who is Burdened Out?" Paper presented at the 2016 International Conference on Questionnaire Design, Development, Evaluation, and Testing (QDET2), Miami, FL, USA.

- Yang, D.K. 2015. "Compiling Respondent Burden Items: A Composite Index Approach." Paper presented at the Consumer Expenditure Survey Methods Symposium. Available at: <https://www.bls.gov/cex/respondent-burden-index.pdf>.
- Yu, E.C., S. Fricker, and B. Kopp. 2015. "Can Survey Instructions Relieve Respondent Burden?" Paper presented at the Annual Conference of the American Association for Public Opinion Research, Hollywood, Florida. Available at: <https://www.bls.gov/osmr/research-papers/2015/pdf/st150260.pdf>.
- Yu, E., W. Martinez, B. Kopp, and S. Fricker. 2015. "Using Text Analysis to Find the Meaning of Respondent Burden." Paper presented at the Annual Conference of the American Association for Public Opinion Research, Hollywood, Florida, USA.
- Zelenak, M.F. 2014. "Reducing Respondent Burden in the American Community Survey's Computer Assisted Personal Visit Interviewing Operation – Phase 1 Results (Part 1)." *2014 American Community Survey Research and Evaluation Report Memorandum Series #ACS14-RER-06*. Available at: https://www.census.gov/content/dam/Census/library/working-papers/2014/acs/2014_Zelenak_01.pdf.
- Zelenak, M.F. and M.C. Davis. 2013. "Impact of Multiple Contacts by Computer-Assisted Telephone Interview and Computer-Assisted Personal Interview on Final Interview Outcome in the American Community Survey." *2013 American Community Survey Research and Evaluation Report Memorandum Series #ACS13-RER-08*. Available at: https://www.census.gov/content/dam/Census/library/working-papers/2013/acs/2013_Zelenak_01.pdf.
- Zukerberg, A. and M. Lee. 1997. "Better Formatting for Lower Response Burden." In *Proceedings of the Survey Research Methods Section: American Statistical Association*, 934-39. Available at: http://www.asasrms.org/Proceedings/papers/1997_161.pdf.

8 APPENDIX

8.1 Focus Group Moderator's Guide

ACS Respondent Burden Moderator's Guide

INTRODUCTION (15 minutes)

Hello, my name is _____ and I will be leading today's group discussion. I want to thank each of you for coming here today. [MENTION OBSERVERS IF NEEDED.]

We will talk about your experiences taking surveys in a group discussion for about two hours. I do not work on the census or the American Community Survey, so please feel free to give both positive and negative feedback. There are no right or wrong answers, because only you know what you are thinking.

This discussion is confidential- we will not use your name in our reports. Your participation is voluntary.

Before we get started, I want to go over a few guidelines that will help this discussion work well. Throughout the focus group I will remind you of these guidelines in order to keep us moving forward, so please do not take offense when I remind you of these guidelines.

- Please speak one at a time.
- Speak in a voice as loud as mine so all can hear.
- Avoid side conversations with your neighbors.
- I want to hear from everyone; however, you do not have to answer every question. I would like everyone to monitor themselves so no one talks too much or too little. Occasionally, I may need to interrupt to ensure that everyone is heard or to ensure we cover all topics.
- We're here to hear your experiences and thoughts, so it's important to know if you've had a similar or different experience than others. If you disagree with someone else's comment, that's ok, but please be respectful.
- I want to give all of you time to talk so I am not going to answer any questions during the discussion. I will be happy to answer questions at the end.
- The restroom is located _____. At any time you can excuse yourself to go to the restroom or to get water. However, I ask that only one person is up or out at a time so the conversation can continue. [MENTION SNACKS IF APPLICABLE].

Do you have any questions before we begin?

Please take a moment to make sure that your cell phone is on silent or turned off.

WARM-UP (15 minutes)

Before we begin, please introduce yourself to the group. Please tell us your first name and one activity that you enjoy doing. [GO AROUND TABLE. START WITH SELF].

Great, thank you. As you read in the form you signed as you arrived this evening, this session is being audio and video recorded so I don't need to take notes while we are talking. We are going to turn on the recorders now. [MAKE SURE EVERYONE SIGNED THE CONSENT FORM].

****TURN ON RECORDERS/CAMERAS****

DISCUSSION (90 minutes)

1. General survey experiences and knowledge (15 minutes):

- a. First, I'd like to hear about your experience taking surveys in general. We will talk about your experiences with census later in the group. What kinds of surveys have you taken before?
 - i. *If needed to warm up the group:*
 1. What are the surveys about?
 2. How do you respond to them (on paper, on the Internet, by phone, or in person)?
- b. **How frequently are you asked to respond to surveys?**
- c. Think of a survey other than census that you completed.
 - i. What made you want to complete the survey? *If needed:* How did you decide to respond?
 1. *If needed:* **How important is the topic of the survey to your decision to respond or not?**
 - a. *If needed:* Does it matter if the survey is interesting or boring?
 - b. *If needed:* What makes a survey interesting?
 2. *If needed:* **What about the length of the survey?**
 3. *If needed:* **How important is it who is conducting the survey?**
- d. **Is there a survey that you were asked to respond to and did not? Why not?**
- e. Now think about a time where you responded to a survey (other than census), and the survey was frustrating or annoying.
 - i. What made the experience a bad one?
 - ii. *If needed:* Did it feel like a hassle or not worth your time?
 1. *If needed:* What are some of the ways in which the survey was a hassle or not worth your time?
 - iii. What could have been changed to give you a better experience?
- f. **After you respond to a survey, what do you think happens with your answers?**
 - i. *If needed:* How do you think the data that is collected from surveys is used?

- ii. Can you think of any examples of how the results of surveys can be useful for you personally?

2. ACS experience (25 minutes):

[NOTE: If the majority of the group cannot recall their ACS experience, give them copies of mail contacts and the paper questionnaire. Give respondents a few minutes to look these over, then probe again.]

- a. I'd like to focus now on one survey in particular. Some of you may remember responding to a survey called the American Community Survey, or ACS, recently. This is a survey that is conducted by the Census Bureau.
- b. Tell me what you remember about your experience with the ACS. It is okay to say you don't remember. I do not work on the ACS, so feel free to give both positive and negative feedback.
 - i. **What about the ACS was difficult? What about it was easy?**
 - ii. **What did you like about the ACS?**
 - 1. *If needed:* What motivated you to complete it?
 - 2. *If needed:* What about your experience was fun or interesting?
 - iii. **What about the survey did you not like?**
 - 1. *If needed:* What about your experience was frustrating or annoying?
 - 2. If you could make changes to the survey, what would you keep the same and what would you change?
- c. **What do you remember about being contacted to respond to this survey?**
 - i. How did the Census Bureau contact you? (*If needed:* By mail? By the phone? In person with an interviewer?)
 - ii. **How many times were you contacted?** How many times by mail? By phone? In person with an interviewer?
 - 1. *If needed:* Was it more than once? More than 5 times? More than 10 times?
 - 2. Did this seem like too few contacts, too many contacts, or just the right amount of contacts?
 - iii. What did the contacts say? What did they tell you to do?
 - iv. **Did you receive a paper questionnaire?**
 - v. **How did you decide whether to respond?**
 - 1. **Was responding to the survey mandatory or voluntary?**
 - 2. (*If needed:* For those of you who said the survey was mandatory,) If the survey were voluntary, would you have responded?
- d. **When you decided to respond to the ACS, how did you respond?** (*If needed:* Online? On paper? By the phone? In person with an interviewer?)

- i. **Did you finish the whole survey at one time?**
 - ii. **Did anyone else in your household help you complete the survey?**
- e. **What do you remember about the questions on the survey?**
 - i. About how many were there?
 - ii. Were there any questions that were difficult to answer?
 - 1. Tell me more about why these questions were difficult.
 - a. *If needed:* Did you need to get additional help or look at documents to answer any of the survey questions?
 - b. *If needed:* Were they sensitive?
 - c. *If needed:* Were they personal?
 - iii. **About how long did it take you to answer the survey?**
 - 1. Do you remember how long the survey said it would take?
 - 2. *If needed:* For those of you who took the census in 2020, did the ACS seem longer or shorter than the census?
 - iv. Were there any questions that you did not want to answer?
 - v. Were there any questions that surprised you?

[NOTE: If the majority of the group cannot recall their ACS experience, give them copies of mail contacts and the paper questionnaire. Give respondents a few minutes to look these over, then probe again.]

- f. What do you think happened with your answers after you responded to the ACS?
 - i. *If needed:* How do you think the data that is collected in the ACS is used?
 - ii. *(If needed:* Data from the ACS are used to produce statistics about the country.) How do you think these statistics are used once the Census Bureau releases them? How useful do you think the statistics are that come out of the ACS?

3. Burden (50 minutes):

- a. For the next part of the session, I'm going to hand you a piece of paper with a question. Please take a few minutes to read over the question and answer it thinking about your experience with the ACS. Again, I do not work on the ACS, so feel free to give both positive and negative feedback. [HAND OUT SET 1 OF CE BURDEN QUESTIONS. GIVE RESPONDENTS A FEW MINUTES].
 - i. **What were you thinking about when you answered this question?**
 - ii. **This question used the word "burden." What does it mean for something to be a "burden" or "burdensome"?**

1. *If needed:* **What are some other words or phrases that mean the same thing as “burden”?**
- iii. *If needed:* **What, if anything, did you find burdensome about your experience with the ACS?**
- b. Now I’d like to give you another set of questions. Please take a few minutes to read over these and answer them thinking about your experience with the ACS. It’s okay if you can’t remember- just answer the questions to the best of your ability. [HAND OUT SET 2 OF CE BURDEN QUESTIONS. GIVE RESPONDENTS A FEW MINUTES].
- c. I’d like to go through these questions one-by-one. Let’s start with the first question. [NOTE: Ask general probes below as relevant for each question. Use specific probes on question page as needed. If time is a constraint, skip questions with concepts already discussed or ask about questions as a whole.]
- d. Some of the questions I will ask you may seem a little bit repetitive. I just want to make sure I understand what you thought about each of these questions.
- e. Looking at question [remind respondents of reference question]
 - i. What were you thinking about when you answered this question?
 1. *If needed:* How did you come up with your answer?
 2. *If needed:* In your own words, what is this question asking?
 3. *If needed:* What does [WORD OR PHRASE] mean to you?
 4. *If needed:* How easy or difficult was it to answer this question?
 - a. *If needed:* Was anything about this question confusing?
- f. **Thinking again to the first question I showed you, is there anything else you can think of that would contribute to the ACS feeling burdensome?**
- g. **What kinds of changes, if any, could be made to the ACS to make it less burdensome?**

CONCLUSION

We are just about finished with the discussion here today. Does anyone have any additional comments or questions? [RESPOND TO COMMENTS AND ANSWER QUESTIONS]

Thank you very much for your time this evening. We will now come around and bring you your money for participating.

Questions for Moderator Reference

Set 1

How burdensome was the ACS to you?

- ☐ Very burdensome
- ☐ Somewhat burdensome
- ☐ A little burdensome
- ☐ Not at all burdensome

Set 2

1. Do you feel that the length of the American Community Survey (ACS) was too long, about right, or too short?

- ☐ Too long
- ☐ About right
- ☐ Too short

2. How interesting was the ACS to you?

- ☐ Very interesting
- ☐ Somewhat interesting
- ☐ A little interesting
- ☐ Not at all interesting

Can spend less time on question #2 if needed

PROBE, IF NEEDED: What does “interesting” mean to you in this question?

3. How difficult or easy was it for you to answer the questions in the ACS?

- ☐ Very easy
- ☐ Somewhat easy
- ☐ Somewhat difficult
- ☐ Very difficult

4. Thinking about the contacts you received for the ACS, would you say it was too many, a reasonable number, or not enough?

- ☐ Too many
- ☐ A reasonable number
- ☐ Not enough

5. How sensitive did you feel the questions on the ACS were?

- ☐ Very sensitive
- ☐ Somewhat sensitive
- ☐ A little sensitive
- ☐ Not at all sensitive

6. How agreeable would you be to take another survey like the ACS in the future?

- Very agreeable
- Somewhat agreeable
- Somewhat disagreeable
- Not at all agreeable

Can spend less time on question #6 if needed

PROBE, IF NEEDED: Were you thinking about surveys for the census, or surveys in general?

7. If we had to extend the ACS for another 15 minutes, how willing would you have been to continue?

- Very willing
- Somewhat willing
- Somewhat unwilling
- Very unwilling

PROBE, IF NEEDED: How willing would you have been to continue if 15 *questions* had been added to the ACS?

8. Thinking about the amount of effort that you put forth into answering the ACS, would you say that you put forth:

- A lot of effort
- A moderate amount of effort
- A little effort
- No effort

PROBE, IF NEEDED: What does “effort” mean to you in this question?

PROBE: Would you say that you estimated for some of your answers, or did you try to answer precisely?

9. Would you say that the time and effort you put into answering the ACS survey questions was:

- Very well spent
- Somewhat well spent
- A little well spent
- Not at all well spent

10. How motivated were you to complete the ACS as quickly as possible? Would you say that you were:

- Very motivated
- Somewhat motivated

- Somewhat unmotivated
- Very unmotivated

PROBE, IF NEEDED: Were you thinking about getting started as quickly as possible, or getting through the survey as quickly as possible once you started answering it?

11. How much do you trust the U.S. Census Bureau to safeguard the information you have provided them on the ACS?

- Strongly trust
- Somewhat trust
- Neither trust nor distrust
- Somewhat distrust
- Strongly distrust

Can spend less time on question #11 if needed

PROBE, IF NEEDED: What does “safeguard” mean to you in this question?

12. How important do you think it is for the U.S. Census Bureau to collect the information on the ACS?

- Very important
- Somewhat important
- Neither important nor unimportant
- Somewhat unimportant
- Very unimportant

8.2 Cognitive Interview Protocol

8.2.1 Round 1

Version A is shown. Version B is identical, with the exception of the order of the two overall burden questions.

Cognitive Testing of ACS Burden Questions, Round 1 (Version A)

PARTICIPANT ID #: _____ DATE: ____ / ____ / ____

INTERVIEWER'S NAME: _____

START TIME: ____: ____ AM / PM

Introduction

Hello, my name is _____, and I work for the Census Bureau. Thank you for agreeing to participate in our study. Let me start by telling you a little about what we will be doing today. The U.S. Census Bureau counts the population in the United States and also conducts various kinds of surveys. Before you came in for this interview, you took one of these surveys called the American Community Survey, or the ACS.

Before questions are added to surveys, it's important to try out questions with the help of people such as yourself. It is important that the questions make sense, are easy to answer, and that everyone understands the questions the same way. Today we will be trying out some new questions for the ACS.

If you agree to take part in this study, I will ask you to answer the questions as if they were a part of the ACS. I am interested in your answers, but I am also interested in the process you go through in your mind when you answer the questions. I will ask you some questions about your answers, or about the questions themselves. There are no right or wrong answers. Our purpose is not to compile information about you. Instead, your interview, along with those of others, will show us how to improve these questions for the survey.

Your participation in this interview is voluntary, and you may decline to answer any question at any time.

[IF OBSERVER PRESENT]: I also want to let you know that this interview is being observed by [DESCRIBE OBSERVER'S ROLE: e.g., someone who works on the American Community Survey]. They are observing the interview because they are also interested in how the questions work for people like you.

Informed Consent

- [HAND RESPONDENT COPY OF THE CONSENT FORM.]

Before we start, I would like you to read over the document in front of you. This document

explains a little bit about this interview and provides information about your rights as a participant, such as that all information you provide is confidential and we won't use your name in any report. It also asks for your permission to have this session audio (IF RELEVANT: and video) recorded so that I can concentrate on what you are saying rather than having to take extensive notes. Please ask me any questions you have about this document. Once you have finished reading the document, please sign and date it.

- [PARTICIPANT READS FORM THEN SIGNS AND DATES FORM.]

Thank you for signing the consent form. I will also sign this form to show that I agree to everything in the form.

- [INTERVIEWER SIGNS AND DATES FORM.]

Do you have any questions about the process?

- [IF PARTICIPANT PROVIDES CONSENT TO HAVE THE SESSION RECORDED] I will now turn on the recorder.
- [TURN ON RECORDER]

CONTINUE TO PRIOR RESPONDENTS BELOW OR SKIP TO NEW RESPONDENTS ON PAGE 3

Prior Respondents: Questionnaire Check

Because it may have been a little while since you answered the American Community Survey, I have a paper copy of the survey here. You may have answered the survey on paper, or you may have done it online, or with an interviewer who came to your home. You may not have answered every question. Please take a minute to flip through this copy of the survey and refresh your memory.

Before we begin, I want to verify that you completed the American Community Survey. Is that correct?

- **IF YES:** Great. Now we are going to go through some additional American Community Survey questions. First, I'm going to hand you one question. Please imagine that this is the last question on the ACS, and that you are answering it right after finishing the rest of the survey. [HAND RESPONDENT COMPLETION TIME QUESTION]. AFTER COMPLETE: Thank you. For this next part of the interview, we are going to do something a little bit different. **SKIP TO THINK-ALoud PRACTICE, PAGE 5**
 - **IF NO OR NOT SURE:** We will need to complete the American Community Survey before we continue. This will take 20-40 minutes. **SKIP TO ACS ADMINISTRATION, PAGE 3**
-

New Respondents: Questionnaire Check

Before we begin, I want to verify that you completed the American Community Survey. Is that correct? IF ASSIGNED MODE WAS PAPER, ASK RESPONDENT TO SHOW YOU.

- **IF YES:** Great. Now we are going to go through some additional American Community Survey questions. First, I'm going to hand you one question. Please imagine that this is the

last question on the ACS, and that you are answering it right after finishing the rest of the survey. [HAND RESPONDENT COMPLETION TIME QUESTION]. AFTER COMPLETE: Thank you. For this next part of the interview, we are going to do something a little bit different. **SKIP TO THINK-ALOUD PRACTICE, PAGE 5**

- **IF NO OR NOT SURE:** We will need to complete the American Community Survey before we continue. This will take 20-40 minutes. **CONTINUE TO ACS ADMINISTRATION BELOW**

ACS Administration (if needed)

CONTINUE TO PAPER ADMINISTRATION BELOW **OR** SKIP TO CAPI ADMINISTRATION (PAGE 4) BASED ON EXPECTED OR ASSIGNED MODE.

- IF EXPECTED MODE WAS INTERNET (PRIOR RESPONDENTS), ADMINISTER PAPER.
- IF ASSIGNED MODE WAS CATI (NEW RESPONDENTS), ADMINISTER CAPI.

PAPER ADMINISTRATION

I am going to give you a paper copy of the American Community Survey. Please go through and answer these questions as you would if this form had been mailed to your home. Please pause when you get to the part of the form that says “Stop here.” I will tell you what to do next. LET RESPONDENT GO THROUGH ROSTER AND HOUSING QUESTIONS.

ONCE RESPONDENT HAS ANSWERED ROSTER AND HOUSING QUESTIONS, STOP AND COUNT HOUSEHOLD MEMBERS (AFTER QUESTION 23).

- IF 3 OR FEWER HOUSEHOLD MEMBERS (INCLUDING RESPONDENT): Thank you. You can continue answering the American Community Survey as you would if this form had been mailed to your home.
- IF MORE THAN 3 HOUSEHOLD MEMBERS (INCLUDING RESPONDENT): Thank you. If this were the real American Community Survey, you would answer the next questions about [NAMES OF ALL HOUSEHOLD MEMBERS]. However, in order to make sure we end this interview on time, please answer the remaining questions about [NAMES AS ASSIGNED BELOW] only.
 - ASSIGN 2 HOUSEHOLD MEMBERS TO ANSWER ABOUT IN ADDITION TO SELF:
 - FIRST PRIORITY: EXTENDED FAMILY MEMBER OR UNRELATED HOUSEHOLD MEMBER
 - SECOND PRIORITY: ONE OF EACH GROUP IN PRIORITY #1 IF THERE ARE MORE THAN ONE
 - THIRD PRIORITY: IMMEDIATE RELATIVE

(ALLOW UP TO 45 MINUTES FOR INTRODUCTION AND ACS ADMINISTRATION. IF RESPONDENT IS TAKING TOO LONG, ENSURE THAT THEY HAVE AT LEAST ANSWERED ALL QUESTIONS FOR PERSON 1 AND 2, THEN SAY: In order to make sure we end this interview on time, we are going to move to the next part of the interview. CONTINUE TO “AFTER ADMINISTRATION COMPLETE” INSTRUCTIONS BELOW.)

AFTER ADMINISTRATION COMPLETE: Thank you. Please answer this question as well. [HAND RESPONDENT COMPLETION TIME QUESTION]. AFTER RESPONDENT COMPLETES: Great, thank you. Now we are going to go through some additional American Community Survey questions. For this next part of the interview, we are going to do something a little bit different.

CONTINUE TO THINK-ALOUD PRACTICE, PAGE 5

CAPI ADMINISTRATION

I am going to ask you questions from the American Community Survey. Please answer these questions as if I were an interviewer who had come to your home. ASK RESPONDENT ROSTER AND HOUSING QUESTIONS.

ONCE RESPONDENT HAS ANSWERED ROSTER AND HOUSING QUESTIONS, STOP AND COUNT HOUSEHOLD MEMBERS WHEN INSTRUCTED.

- IF 3 OR FEWER HOUSEHOLD MEMBERS (INCLUDING RESPONDENT): CONTINUE ADMINISTERING SURVEY.
- IF MORE THAN 3 HOUSEHOLD MEMBERS (INCLUDING RESPONDENT): Thank you. If this were the real American Community Survey, you would answer the next questions about [NAMES OF ALL HOUSEHOLD MEMBERS]. However, in order to make sure we end this interview on time, please answer the remaining questions about [NAMES AS ASSIGNED BELOW] only.
 - ASSIGN 2 HOUSEHOLD MEMBERS TO ANSWER ABOUT IN ADDITION TO SELF:
 - FIRST PRIORITY: EXTENDED FAMILY MEMBER OR UNRELATED HOUSEHOLD MEMBER
 - SECOND PRIORITY: ONE OF EACH GROUP IN PRIORITY #1 IF THERE ARE MORE THAN ONE
 - THIRD PRIORITY: IMMEDIATE RELATIVE

ALLOW UP TO 45 MINUTES FOR INTRODUCTION AND ACS ADMINISTRATION. IF RESPONDENT IS TAKING TOO LONG, ENSURE THAT THEY HAVE AT LEAST ANSWERED ALL QUESTIONS FOR PERSON 1 AND 2, THEN SAY: In order to make sure we end this interview on time, we are going to move to the next part of the interview. CONTINUE TO “AFTER ADMINISTRATION COMPLETE” INSTRUCTIONS BELOW.)

AFTER ADMINISTRATION COMPLETE, NOTE END TIME OF ACS INTERVIEW: _____. Great, thank you. Now we are going to go through some additional American Community Survey questions. For this next part of the interview, we are going to do something a little bit different.

CONTINUE TO THINK-ALOUD PRACTICE BELOW

Think-Aloud Practice

I will be asking you to answer some questions, but I’d also like you to think aloud as you answer the questions. Tell me everything you are thinking about as you go about answering each question. I may remind you to think aloud as we go through the survey questions.

Let's begin with a practice question. Remember to try to think aloud as you answer.

Practice Question 1. How many windows are there in the place where you live? _____

If needed: Try to visualize the place where you live, and think about how many windows there are in that place. As you count up the windows, tell me what you are seeing and thinking about.

Probe if needed:

- *How did you come up with that answer?*
- *Tell me more about that. Why did you say [ANSWER]?*
- *I noticed that you hesitated. Tell me what you were thinking.*

ENCOURAGE RESPONDENTS TO THINK ALOUD AS NEEDED THROUGHOUT INTERVIEW:

- Remember to tell me what you are thinking about as you answer these questions.
- How did you come up with your answer?

Okay, let's move on. **CONTINUE TO OVERALL BURDEN**

Overall Burden (Question Administration and Probing)

INTERVIEWER: NOTE VERSION ASSIGNMENT A FOR INTERVIEW. RESPONDENTS WILL BE ASKED AND PROBED ABOUT VERSION A, AND THEN ASKED AND PROBED ABOUT VERSION B.

IF PAPER OR INTERNET, SELF-ADMINISTER:

- We are going to start with the first question. [HAND 1A TO RESPONDENT] There is a sentence on this page asking for you to think about your survey experience as a whole.
 - PRIOR RESPONDENTS: For the purposes of this interview, please think only about your experience before you were called to ask if you would like to come in for this in-person interview. Do not think about your experience scheduling this in-person interview.
 - NEW RESPONDENTS: For the purposes of this interview, please think only about your experience answering the ACS questionnaire we [mailed to your home / administered to you over the telephone]. Do not think about your experience scheduling this in-person interview.
- Otherwise, please answer this question as you would if this form had been mailed to your home, and remember to think aloud as you answer.
- HAVE RESPONDENT COMPLETE FIRST QUESTION ON PAPER

IF CAPI, INTERVIEWER ADMINISTER:

- I am going to ask you one question to start. There is a sentence introducing these questions asking for you to think about your survey experience as a whole.
 - PRIOR RESPONDENTS: For the purposes of this interview, please think only about your experience before you were called to ask if you would like to come in for this

in-person interview. Do not think about your experience scheduling this in-person interview.

- NEW RESPONDENTS: For the purposes of this interview, please think only about your experience answering the ACS questionnaire we [mailed to your home / administered to you over the telephone]. Do not think about your experience scheduling this in-person interview.
- Otherwise, please answer this question as if I were an interviewer who had come to your home, and remember to think aloud as you answer.
- READ FIRST QUESTION 1A TO RESPONDENT AND RECORD ANSWER ON PAPER
- NOTE ANY PROBLEMS YOU HAVE ADMINISTERING THE QUESTION TO THE RESPONDENT, SUCH AS DIFFICULTY READING THE RESPONSE OPTIONS

AFTER QUESTION ADMINISTRATION:

Thank you. Before we move on, I would like to talk a little bit more about how you came up with your answer so I can see how we can improve this question.

- **IF PAPER:** ALLOW RESPONDENT TO KEEP PAPER.
- **IF CATI/CAPI:** HAND 1A TO RESPONDENT. Here is the answer I recorded for this question.

1A. [VERSION A] How burdensome was the American Community Survey for you?

- Not at all burdensome
- A little burdensome
- Moderately burdensome
- Very burdensome

Version A Probes:

- What words or phrases would you use to describe your experience taking the American Community Survey?
- What does “burdensome” mean to you?
 - What are some other words or phrases that mean the same thing as “burdensome”?

CARD SORT #1: PICK UP ACTIVITY CARDS, SHUFFLE (EXCEPT FOR ACS), AND HAND TO RESPONDENT. ACS SHOULD BE AT BOTTOM OF PILE. Next, we are going to do something a little bit different. I am going to hand you a stack of cards. Each card has a different kind of activity listed on it. I would like you to place these cards into the four categories of the question you just answered. [LAY OUT CARDS WITH RESPONSE CATEGORIES IN ONE LINE STARTING WITH FIRST CATEGORY ON LEFT AND GESTURE TO]: Thinking about when you complete these activities yourself, put the activities that you think are very burdensome in this pile, put the activities that you think are moderately burdensome in this pile, and so on. Remember, there are no right or wrong answers.

- GIVE RESPONDENT A FEW MINUTES TO COMPLETE TASK

- ASK RESPONDENTS TO LAY CARDS OUT SO YOU CAN SEE EACH ONE INDIVIDUALLY
- RESPONDENTS CAN CHOOSE NOT TO SORT AN ACTIVITY AT ALL, BUT THEY CANNOT STRADDLE CATEGORIES. IF RESPONDENT IS STRADDLING: If you had to choose a category for this card, which one would you choose?

Card Sort #1 Probes:

Thank you. I am going to take a photo of the cards so that I remember where you placed the activities. ****TAKE PHOTO OF CARD SORT.****

IF RESPONDENT WANTS TO CHANGE CARD SORT **BECAUSE OF A PROBE OTHER THAN RANKING**: Because it's important for us to see how you think about the categories, I ask that you please don't go back and change your answers. We can talk about any answers you would like to change later in the interview.

- Can you tell me how did you decide what to put in each category?
 - *If needed: What do they have in common?*
- Now I'd like us to look at piles individually.
 - START WITH FIRST RESPONSE OPTION IN BURDENSOME QUESTION:
 - IF MORE THAN ONE CARD: Looking at the cards in the pile [FIRST RESPONSE OPTION], how would you order these cards from less to more burdensome within this category?
 - IF RESPONDENT CANNOT DECIDE HOW TO SORT: If you had to put these in order, how would you sort them?
 - DO NOT LET RESPONDENT RANK ACTIVITIES EQUALLY
 - RESPONDENTS CAN MOVE ACTIVITIES BETWEEN CATEGORIES HERE IF THEY WOULD LIKE TO
 - IF NOT MORE THAN ONE CARD, MOVE TO NEXT CATEGORY
 - [REPEAT FOR EACH PILE WITH MORE THAN ONE CARD IN RESPONSE OPTION ORDER]

I am going to take another photo of the cards so that I remember where you placed the activities. ****TAKE PHOTO OF CARD SORT.****

- IF RESPONDENT CATEGORIZED ACS DIFFERENTLY DURING CARD SORT: When you first answered this question, you selected [RESPONSE OPTION]. Can you tell me more about how you decided to put the ACS in [RESPONSE OPTION] when sorting the cards?
- When you first answered this question "How burdensome was the American Community Survey for you?", you selected [RESPONSE OPTION]. Are there any other activities that you can think of that you would also consider to be [RESPONSE OPTION], other than the ones you saw on the cards?
- IF RESPONDENT WANTED TO CHANGE CARD SORT DURING PROBING: Earlier, there was [a card / some cards] that you wanted to move. Can you tell me more about that?

ALTERNATE VERSION OF BURDEN QUESTION:

- **PAPER:** [HAND RESPONDENT VERSION 1B] Now I'd like you to take a moment and read over this question. Please answer it thinking about your experience with the American Community Survey, and remember to think aloud.
 - HAVE RESPONDENT COMPLETE ALTERNATE QUESTION ON PAPER
- **CATI:** Now I'd like to ask a second question. Please answer it thinking about your experience with the American Community Survey, and remember to think aloud.
 - READ ALTERNATE QUESTION 1B TO RESPONDENT AND RECORD ANSWER ON PAPER
 - NOTE ANY PROBLEMS YOU HAVE ADMINISTERING THE QUESTION TO THE RESPONDENT, SUCH AS DIFFICULTY READING THE RESPONSE OPTIONS

AFTER QUESTION ADMINISTRATION:

Thank you. Before we move on, I would like to talk a little bit more about how you came up with your answer so I can see how we can improve this question.

- IF PAPER: ALLOW RESPONDENT TO KEEP PAPER.
- IF CATI/CAPI: HAND Q1B TO RESPONDENT. Here is the answer I recorded for this question.

1B. [VERSION B] How much of a hassle was the American Community Survey for you?

- Not at all a hassle
- A little bit of a hassle
- Somewhat of a hassle
- Very much a hassle

Version B Probes:

- What does "a hassle" mean to you?
 - What are some other words or phrases that mean the same thing as "a hassle"?
- What do you see as the difference between these two questions [POINT TO BOTH 1A AND 1B]?
- Is one easier to answer than the other?

CARD SORT #2: PICK UP ACTIVITY CARDS, SHUFFLE (EXCEPT FOR ACS), AND HAND TO RESPONDENT. ACS SHOULD BE AT BOTTOM OF PILE. I would like you to look at the stack of cards again and sort the cards into four different piles. This time, the categories will be the four categories of the second question you answered: [LAY OUT CARDS WITH RESPONSE CATEGORIES IN ONE LINE STARTING WITH FIRST CATEGORY ON LEFT AND GESTURE TO].

Thinking again about when you complete these activities yourself, put the activities that you think are very much a hassle in this pile, put the activities that you think are somewhat of a hassle in this pile, and so on. Remember, there are no right or wrong answers.

- GIVE RESPONDENT A FEW MINUTES TO COMPLETE TASK
- ASK RESPONDENTS TO LAY CARDS OUT SO YOU CAN SEE EACH ONE INDIVIDUALLY

- RESPONDENTS CAN CHOOSE NOT TO SORT AN ACTIVITY AT ALL, BUT THEY CANNOT STRADDLE CATEGORIES. IF RESPONDENT IS STRADDLING: If you had to choose a category for this card, which one would you choose?

Card Sort #2 Probes:

Thank you. I am going to take a photo of the cards so that I remember where you placed the activities. ****TAKE PHOTO OF CARD SORT.****

IF RESPONDENT WANTS TO CHANGE CARD SORT **BECAUSE OF A PROBE OTHER THAN**

RANKING: Because it's important for us to see how you think about the categories, I ask that you please don't go back and change your answers. We can talk about any answers you would like to change later in the interview.

- Can you tell me how did you decide what to put in each category?
 - *If needed: What do they have in common?*
- Now I'd like us to look at each pile individually.
 - START WITH FIRST RESPONSE OPTION IN HASSLE QUESTION:
 - IF MORE THAN ONE CARD: Looking at the cards in pile [FIRST RESPONSE OPTION], how would you order these cards from less to more of a hassle within this category?
 - IF RESPONDENT CANNOT DECIDE HOW TO SORT: If you had to put these in order, how would you sort them?
 - DO NOT LET RESPONDENT RANK ACTIVITIES EQUALLY
 - RESPONDENTS CAN MOVE ACTIVITIES BETWEEN CATEGORIES HERE IF THEY WOULD LIKE TO
 - IF NOT MORE THAN ONE CARD, MOVE TO NEXT CATEGORY
 - [REPEAT FOR EACH PILE WITH MORE THAN ONE CARD IN RESPONSE OPTION ORDER]

I am going to take another photo of the cards so that I remember where you placed the activities. ****TAKE PHOTO OF CARD SORT.****

- IF RESPONDENT CATEGORIZED ACS DIFFERENTLY DURING CARD SORT: When you first answered this question, you selected [RESPONSE OPTION]. Can you tell me more about how you decided to put the ACS in [RESPONSE OPTION] when sorting the cards?
- When you first answered this question "How much of a hassle was the American Community Survey for you?", you selected [RESPONSE OPTION]. Are there any other activities that you can think of that you would also consider to be [RESPONSE OPTION], other than the ones you saw on the cards?
- IF RESPONDENT WANTED TO CHANGE CARD SORT DURING PROBING: Earlier, there was [a card / some cards] that you wanted to move. Can you tell me more about that?

Thank you. Let's continue with some additional questions.

Burden Question Series (Question Administration and Probing)

CONTINUE IN SAME MODE OF ADMINISTRATION. HAVE RESPONDENT ANSWER ALL REMAINING QUESTIONS, AND THEN PROBE RETROSPECTIVELY.

IF PRIOR RESPONDENT, HAND OVER/READ QUESTIONS 2-7B AT SAME TIME. IF NEW RESPONDENT, HAND OVER/READ QUESTIONS 4-7B AT SAME TIME.

IF PAPER OR INTERNET:

- Here are the next questions I would like you to answer. [HAND REMAINING QUESTIONS TO RESPONDENT AS NOTED ABOVE] Please answer these questions as you would if this form had been mailed to your home, and remember to think aloud as you answer.
- HAVE RESPONDENT COMPLETE REMAINING QUESTIONS ON PAPER

IF CAPI, INTERVIEWER ADMINISTER:

- Please answer these next questions as if I were an interviewer who had come to your home, and remember to think aloud as you answer these questions.
- READ REMAINING TO RESPONDENT AS NOTED ABOVE AND RECORD ANSWERS ON PAPER
- NOTE ANY PROBLEMS YOU HAVE ADMINISTERING THE QUESTION TO THE RESPONDENT, SUCH AS DIFFICULTY READING THE RESPONSE OPTIONS

AFTER QUESTION ADMINISTRATION:

Thank you. Now I would like to talk a little bit more about how you came up with your answers, so I can see how we can improve these questions.

- IF PAPER: ALLOW RESPONDENT TO KEEP PAPER(S).
- IF CATI/CAPI: HAND QUESTION SERIES YOU JUST ADMINISTERED TO RESPONDENT. Here are the answers I recorded for these questions.

IF NEW RESPONDENT, SKIP TO QUESTION 4 ON PAGE 12. IF PRIOR RESPONDENT, ASK ABOUT QUESTIONS 2 AND 3 TOGETHER.

- | |
|--|
| 3. [PRIOR RESPONDENTS ONLY] Do you feel that the number of times you were contacted for the American Community Survey was not enough, just the right amount, a little too much, or way too much?
<ul style="list-style-type: none">○ Not enough○ Just the right amount○ A little too much○ Way too much |
| 4. [PRIOR RESPONDENTS ONLY] Thinking about the times you were contacted for the American Community Survey, would you say the contacts were very appropriate, somewhat appropriate, somewhat inappropriate, or very inappropriate?
<ul style="list-style-type: none">○ Very appropriate○ Somewhat appropriate○ Somewhat inappropriate○ Very inappropriate |

Questions 2 and 3 Probes:

- *If needed: Please think only about your experience being contacted for the American Community Survey, not your experience being contacted for this interview.*
- *If needed: Tell me what you remember about being contacted for the American Community Survey.*
- *If not apparent from respondent narrative: Do you remember about how many times were you contacted overall?*
- What does “appropriate” mean to you in question 3?
- Would you have preferred to have been contacted in a different way?
- NOTE ANY COMMENTS ON THE TONE OR TIMING OF THE CONTACT ATTEMPTS, MESSAGING

5. How much effort did you put into answering the American Community Survey?

- [A little bit to no effort / No effort to a little bit of effort]
- A moderate amount of effort
- A lot of effort

Question 4 Probes:

- What does “effort” mean to you in question 4?
- IF COMPLETED ACS PRIOR TO INTERVIEW: Did you consult any records?
IF COMPLETED ACS IN INTERVIEW: Would you have consulted any records if you were at home when completing the ACS?
- IF COMPLETED ACS PRIOR TO INTERVIEW: Did you ask someone else in your household to help you complete the American Community Survey? Tell me more about that.
IF COMPLETED ACS IN INTERVIEW: If you had completed this survey at home, would you have asked someone else in your household to help you complete the American Community Survey? Tell me more about that.
- IF COMPLETED ACS PRIOR TO INTERVIEW: Did you take any steps to make sure that the American Community Survey was a real survey?
 - *If needed: Were you concerned that the survey may have been a scam?*
 - If yes: What steps did you take? (*If needed: Did you look up the survey online, or call the Census Bureau?*)IF COMPLETED ACS IN INTERVIEW: If you had received this survey at your home, would you have taken any steps to make sure that the American Community Survey was a real survey?
 - *If needed: Would you be concerned that the survey may be a scam?*
 - If yes: What steps would you take? (*If needed: Would you look up the survey online, or call the Census Bureau?*)

- You said that you put [RESPONSE OPTION] into answering the American Community Survey. What other types of activities can you think of that you would also consider to require [RESPONSE OPTION]?

6. Do you feel that the time it took you to complete the American Community Survey was less than you expected, about what you expected, or more than you expected?
- ☐ Less than I expected
 - ☐ About what I expected
 - ☐ More than I expected

7. How easy or difficult was it to answer the American Community Survey questions?
- ☐ Very easy
 - ☐ Somewhat easy
 - ☐ Somewhat difficult
 - ☐ Very difficult

Question 6 Probes:

- [IF SOMEWHAT OR VERY DIFFICULT]: Do you remember any particular questions that were difficult to answer?

8. Would you say that the American Community Survey invades or respects your privacy?
- ☐ Invades my privacy (SKIP TO 7A)
 - ☐ Respects my privacy (SKIP TO 7B)

7A. Would you say it is very invasive, or somewhat invasive?

- ☐ Very invasive
- ☐ Somewhat invasive

7B. Would you say it is very respectful, or somewhat respectful?

- ☐ Very respectful
- ☐ Somewhat respectful

Question 7 Probes:

- What does “invading your privacy” mean to you in this question?
- What does “respecting your privacy” mean to you in this question?
- Do you remember any particular questions that you felt invaded your privacy?

Debriefing Questions

We are almost finished with the interview.

- 1) PRIOR RESPONDENTS ONLY: Thinking generally about the American Community Survey from the first time you were contacted until you finished answering the survey questions, what stood out to you the most about your experience?
- 2) Thinking about all of the other questions we talked about besides the first two that we talked about [POINT TO BURDENSOME AND HASSLE QUESTIONS], which question(s) you answered today are the most important in capturing how you felt about your overall experience with the American Community Survey? (MAKE SURE RESPONDENT IS NOT THINKING OF ACS)
- 3) Was there anything else that stood out to you about your experience that we didn't talk about today?
- 4) Thinking about these last questions that you answered today [POINT TO 1-7B BURDEN SERIES], were there any questions you think some people might find difficult to answer?
- 5) Did you have any other thoughts about the last few questions we talked about today [POINT TO 1-7B BURDEN SERIES]?

Those are all of the questions that I had for you today. Thank you very much for your participation.

[TURN OFF THE RECORDER.]

Here is an envelope containing your \$40, and a voucher form that verifies I gave you the money. Please complete the information in the highlighted areas and sign and date.

[HAND THE CASH INCENTIVE TO THE PARTICIPANT AND COLLECT VOUCHER FORM.]

Cards:

1. The American Community Survey
2. Doing taxes
3. Moving to a new home
4. Dealing with health insurance
5. Handling an emergency
6. Getting a passport or driver's license
7. Planning a major event
8. Paying bills
9. Commuting
10. Applying for jobs
11. Going to the bank
12. Cleaning
13. Voting
14. Grocery shopping
15. Exercising
16. Filling out forms at the doctor's office
17. Eating
18. Watching TV
19. Going on vacation
20. Spending time with friends
21. Spending time on hobbies

8.2.2 Round 2

Version A is shown. Version B is identical, with the exception of the order of the two overall burden questions.

Cognitive Testing of ACS Burden Questions, Round 2 (Version A)

PARTICIPANT ID #: _____ DATE: ____ / ____ / ____

INTERVIEWER'S NAME: _____

START TIME: ____ : ____ AM / PM

Introduction

Hello, my name is _____, and I work for the Census Bureau. Thank you for agreeing to participate in our study. Let me start by telling you a little about what we will be doing today. The U.S. Census Bureau counts the population in the United States and also conducts various kinds of surveys. Before you came in for this interview, you took one of these surveys, called the American Community Survey, or the ACS.

Before questions are added to surveys, it's important to try out questions with the help of people such as yourself. It is important that the questions make sense, are easy to answer, and that everyone understands the questions the same way. Today we will be trying out some new questions for the ACS.

If you agree to take part in this study, I will ask you to answer the questions as if they were a part of the ACS. I am interested in your answers, but I am also interested in the process you go through in your mind when you answer the questions. I will ask you some questions about your answers, or about the questions themselves. There are no right or wrong answers. Our purpose is not to compile information about you. Instead, your interview, along with those of others, will show us how to improve these questions for the survey.

Your participation in this interview is voluntary, and you may decline to answer any question at any time.

[IF OBSERVER PRESENT]: I also want to let you know that this interview is being observed by [DESCRIBE OBSERVER'S ROLE: E.G., SOMEONE WHO WORKS ON THE AMERICAN COMMUNITY SURVEY]. They are observing the interview because they are also interested in how the questions work for people like you.

Informed Consent

- [HAND RESPONDENT COPY OF THE CONSENT FORM.]

Before we start, I would like you to read over the document in front of you. This document explains a little bit about this interview and provides information about your rights as a participant, such as that all information you provide is confidential and we won't use your name

in any report. It also asks for your permission to have this session audio (IF RELEVANT: and video) recorded so that I can concentrate on what you are saying rather than having to take extensive notes. Please ask me any questions you have about this document. Once you have finished reading the document, please sign and date it.

- [PARTICIPANT READS FORM THEN SIGNS AND DATES FORM.]

Thank you for signing the consent form. I will also sign this form to show that I agree to everything in the form.

- [INTERVIEWER SIGNS AND DATES FORM.]

Do you have any questions about the process?

- [IF PARTICIPANT PROVIDES CONSENT TO HAVE THE SESSION RECORDED] I will now turn on the recorder.
- [TURN ON RECORDER]

Questionnaire Check

PRIOR RESPONDENTS: Because it may have been a little while since you answered the American Community Survey, I have a paper copy of the survey here. You may have answered the survey on paper, or you may have done it with an interviewer who came to your home. You may not have answered every question that you see here. Please take a minute to flip through this copy of the survey and refresh your memory. Before we begin, I want to verify that you completed the American Community Survey. Is that correct? SKIP TO YES OR NO BELOW

NEW RESPONDENTS: Before we begin, I want to verify that you completed the American Community Survey. Do you have the questionnaire with you? ASK RESPONDENT TO SHOW YOU, AND COLLECT THEIR FORM AT THE END OF THE INTERVIEW. SKIP TO YES OR NO BELOW

IF YES: Great. Now we are going to go through some additional American Community Survey questions. CONTINUE BELOW TO THINK-ALOUD PRACTICE

IF NO OR NOT SURE: We will need to complete the American Community Survey before we continue. This will take 20-40 minutes. REFER TO ACS ADMINISTRATION HANDOUT

Think-Aloud Practice

For this next part of the interview, I will be asking you to answer some questions, but I'd also like you to think aloud as you answer the questions. Tell me everything you are thinking about as you go about answering each question. I may remind you to think aloud as we go through the survey questions.

Let's begin with a practice question. Remember to try to think aloud as you answer.

How many windows are there in the place where you live? _____

If needed: Try to visualize the place where you live, and think about how many windows there are in that place. As you count up the windows, tell me what you are seeing and thinking about.

- *How did you come up with that answer?*
- *Tell me more about that. Why did you say [ANSWER]?*
- *I noticed that you hesitated. Tell me what you were thinking.*

ENCOURAGE RESPONDENTS TO THINK ALOUD AS NEEDED THROUGHOUT INTERVIEW:

- Remember to tell me what you are thinking about as you answer these questions.
- How did you come up with your answer?

Okay, let's move on.

Question Administration

PAPER RESPONDENTS: SELF-ADMINISTER.

Now I would like you to answer some questions. I will hand you a sheet of paper with the questions.

- **PRIOR RESPONDENTS:** For the purposes of this interview, please think only about your experience *before* you were called to ask if you would like to come in for this in-person interview.
- **NEW RESPONDENTS:** For the purposes of this interview, please think only about your experience answering the ACS questionnaire we mailed to your home.

Do not think about your experience scheduling this in-person interview for today. Otherwise, please answer these questions as you would if they had been on the form mailed to your home. Please imagine that these are the last questions on the ACS, and that you are answering them right after finishing the rest of the survey. Remember to think aloud as you answer.

HAVE RESPONDENT COMPLETE ALL QUESTIONS ON PAPER. PROBING IS DONE RETROSPECTIVELY.
SKIP TO RETROSPECTIVE PROBING SECTION BELOW

CAPI RESPONDENTS: INTERVIEWER ADMINISTER.

Now I would like you to answer some questions. I will read the questions to you and ask you to answer them. For the purposes of this interview, please think only about your experience before you were called to ask if you would like to come in for this in-person interview. Do not think about your experience scheduling this in-person interview for today. Otherwise, please answer these questions as you would if I were an interviewer who had come to your home. Please imagine that these are the last questions on the ACS, and that you are answering them right after finishing the rest of the survey. Remember to think aloud as you answer.

ADMINISTER ALL QUESTIONS TO RESPONDENT AND RECORD ANSWERS ON PAPER. IN THE PROTOCOL, NOTE ANY PROBLEMS YOU HAVE ADMINISTERING THE QUESTIONS TO THE

RESPONDENT, SUCH AS DIFFICULTY READING THE RESPONSE OPTIONS. PROBING IS DONE RETROSPECTIVELY. CONTINUE TO RETROSPECTIVE PROBING SECTION BELOW

Retrospective Probing

NOTE: QUESTION WORDING SHOWN HERE IS THE PAPER VERSION. CAPI WORDING IS SIMILAR. Thank you for answering these questions. Now I would like to go back and talk a little bit more about how you came up with your answers so I can see how we can improve these questions.

- **IF PAPER:** ALLOW RESPONDENT TO KEEP PAPERS.
- **IF CAPI:** HAND PAPERS TO RESPONDENT. Here are the answers I recorded for the questions.

Q1: COMPLETION TIME

1. Please indicate how much time it took you to complete this survey, not counting interruptions.

_____ minutes

Probes:

- NO SCRIPTED PROBES; PROBE AS NEEDED.

Q2A: BURDENSOME

2A. How burdensome was the American Community Survey for you?

- ☐ Not at all burdensome
- ☐ A little burdensome
- ☐ Somewhat burdensome
- ☐ Very burdensome

Probes:

- What does “burdensome” mean to you?
 - *If needed:* What are some other words or phrases that mean the same thing as “burdensome”?
- What kinds of tasks or activities would you also consider to be [RESPONSE OPTION]?

HAND OTHER VERSION TO RESPONDENT. Now I would like you to look at another question. GIVE RESPONDENT A MOMENT TO READ; THEY DO NOT HAVE TO ANSWER IT.

Q2B. HASSLE

2B. How much of a hassle was the American Community Survey for you?

- ☐ Not at all a hassle
- ☐ A little bit of a hassle
- ☐ Somewhat of a hassle

- Very much a hassle

Probes:

- What does “a hassle” mean to you in this question?
 - *If needed:* What are some other words or phrases that mean the same thing as “a hassle”?
- What do you see as the difference, if any, between these two questions [POINT TO BOTH 2A AND 2B]?
- Do you think one would be easier to answer than the other?

Q3. EFFORT

9. How much effort did it take to answer the American Community Survey?
- No effort
 - A little bit of effort
 - A moderate amount of effort
 - A lot of effort

Probes:

- What does “effort” mean to you in this question?
- **IF COMPLETED ACS PRIOR TO COMING IN FOR INTERVIEW:**
 - Did you consult any records while completing the ACS? Tell me more about that.
 - Did you ask someone else in your household to help you complete the American Community Survey? Tell me more about that.
 - Did you take any steps to make sure that the American Community Survey was a real survey?
 - *If needed:* Were you concerned that the survey may have been a scam?
 - **IF YES:** What steps did you take? (*If needed:* Did you look up the survey online, or call the Census Bureau?)
- You said that you put [RESPONSE OPTION] into answering the American Community Survey. What other types of activities can you think of that you would also consider to require [RESPONSE OPTION]?

Q4. PRIVACY

10. Would you say that the American Community Survey invades, or does not invade your privacy?
- Invades my privacy (GO TO 4A)
 - Does not invade my privacy

4A. Would you say it is a little invasive, somewhat invasive, or very invasive?

- A little invasive
- Somewhat invasive
- Very invasive

Probes:

- What does “invading your privacy” mean to you in this question?
- **IF A LITTLE/SOMEWHAT/VERY INVASIVE:** Which aspects of the ACS experience did you feel invaded your privacy?
- *If needed:* Do you remember any particular questions that you felt invaded your privacy?
- Do you think that it is important for the Census Bureau to collect the information on the ACS, or does it not matter whether the information is collected?

Card Sort

Thank you for answering my questions. Next, I am going to hand you a stack of cards. Each card has a different word listed on it. I would like you to place these cards into two piles. In one of the piles, I would like you to put the cards that describe how you felt about your experience with the ACS. The other pile should be cards that *do not* describe how you felt about your experience with the ACS. I am going to shuffle these cards and then hand them to you. PICK UP CARDS, SHUFFLE, AND HAND TO RESPONDENT. GIVE RESPONDENT A FEW MINUTES TO COMPLETE TASK.

- RESPONDENTS CANNOT STRADDLE CATEGORIES. IF RESPONDENT IS STRADDLING: If you had to choose one pile, which one would you choose?

Interesting	Bothersome	Fine
Easy	Annoying	Standard
Important	Inconvenient	Typical
Useful	Time-consuming	Normal
Rewarding	Difficult	Reasonable
Motivating	Personal	Good
Appropriate	Boring	Tolerable
Valuable	Inappropriate	Necessary

WHEN RESPONDENT IS FINISHED: Thank you. I am going to take a photo of the cards so that I remember where you placed them. CLARIFY WHICH PILE DESCRIBES THE ACS IF YOU NEED TO.

****SPREAD OUT PILE AND TAKE PHOTO OF PILE DESCRIBING ACS. TAKE NEW PICTURE IF MOVE PILES****

Probes:

YOU CAN LET RESPONDENTS CHANGE ANSWERS. NOTE THIS IN YOUR SUMMARY WHEN IT OCCURS.

- Generally speaking, can you tell me how did you decide what to put in each pile?

- *If needed:* What do they have in common?
- I'd like us to look just at the pile with the words that described your experience with the ACS. Of the words here, which word or words *best* describes your experience?
- Are there any words or phrases, other than the ones you saw here, that are a good way to describe your experience?

Debriefing Questions

- 1) **PRIOR RESPONDENTS ONLY:** Thinking generally about the American Community Survey from the first time you were contacted until you finished answering the survey questions, what stood out to you the most about your experience?
- 2) Going back to the questions we talked about today [POINT TO QUESTION SERIES AND ALTERNATE BURDEN QUESTION], which question(s) are the most important in capturing how you felt about your overall experience with the American Community Survey? (MAKE SURE RESPONDENT IS NOT THINKING OF ACS ITSELF)
- 3) Thinking about all of the questions we talked about today [POINT TO QUESTION SERIES], were there any questions you think some people might find difficult to answer? (MAKE SURE RESPONDENT IS NOT THINKING OF ACS ITSELF)
- 4) Was there anything else that stood out to you about your experience that we didn't talk about today?
- 5) Did you have any other thoughts about these questions?

Great, thank you very much.

- **IF SELECTED FOR RESPONDENT FEEDBACK TESTING:** For the last part of the interview, we are going to talk about a couple more new questions for the ACS. GO TO RESPONDENT FEEDBACK TESTING PROTOCOL
- **IF NOT SELECTED FOR RESPONDENT FEEDBACK TESTING:** Those are all of the questions that I had for you today. Thank you very much for your participation.

[TURN OFF THE RECORDER.]

Here is an envelope containing your \$40, and a voucher form that verifies I gave you the money. Please complete the information in the highlighted areas and sign and date.

[HAND THE CASH INCENTIVE TO THE PARTICIPANT AND COLLECT VOUCHER FORM.]

Card Numbers

- 1) Interesting
- 2) Easy
- 3) Important
- 4) Useful
- 5) Rewarding
- 6) Motivating
- 7) Appropriate
- 8) Valuable
- 9) Bothersome
- 10) Annoying
- 11) Inconvenient
- 12) Time-consuming
- 13) Difficult
- 14) Personal
- 15) Boring
- 16) Inappropriate
- 17) Fine
- 18) Standard
- 19) Typical
- 20) Normal
- 21) Reasonable
- 22) Good
- 23) Tolerable
- 24) Necessary

8.3 Cognitive Interview CAPI Question Wording

Question	Round 1	Round 2
Completion time	Please indicate how much time it took you to complete this survey, not counting interruptions. _____ minutes	Please indicate how much time it took you to complete this survey, not counting interruptions. _____ minutes
Introductory sentence	We would like to get feedback on your involvement in this survey as a whole, from the first time you were contacted for the survey until now.	We would like to get feedback on your involvement in this survey as a whole, from the first time you were contacted for the survey until now.
Overall Burden (Burdensome)	How burdensome was the American Community Survey for you? Would you say it was not at all burdensome, a little burdensome, moderately burdensome, or very burdensome? <ul style="list-style-type: none"> <input type="radio"/> Not at all burdensome <input type="radio"/> A little burdensome <input type="radio"/> Moderately burdensome <input type="radio"/> Very burdensome 	How much of a burden was the American Community Survey for you? Would you say it was not at all burdensome, a little burdensome, somewhat burdensome, or very burdensome? <ul style="list-style-type: none"> <input type="radio"/> Not at all burdensome <input type="radio"/> A little burdensome <input type="radio"/> Somewhat burdensome <input type="radio"/> Very burdensome
Overall Burden (Hassle)	How much of a hassle was the American Community Survey for you? Would you say it was not at all a hassle, a little bit of a hassle, somewhat of a hassle, or very much a hassle? <ul style="list-style-type: none"> <input type="radio"/> Not at all a hassle <input type="radio"/> A little bit of a hassle <input type="radio"/> Somewhat of a hassle <input type="radio"/> Very much a hassle 	How much of a hassle was the American Community Survey for you? Would you say it was not at all a hassle, a little bit of a hassle, somewhat of a hassle, or very much a hassle? <ul style="list-style-type: none"> <input type="radio"/> Not at all a hassle <input type="radio"/> A little bit of a hassle <input type="radio"/> Somewhat of a hassle <input type="radio"/> Very much a hassle
Contact Attempts	Do you feel that the number of times you were contacted for the American Community Survey was not enough, just the right amount, a little too much, or way too much? <ul style="list-style-type: none"> <input type="radio"/> Not enough <input type="radio"/> Just the right amount <input type="radio"/> A little too much <input type="radio"/> Way too much 	Not asked

Appropriateness of Contacts	<p>Thinking about the times you were contacted for the American Community Survey, would you say the contacts were very appropriate, somewhat appropriate, somewhat inappropriate, or very inappropriate?</p> <ul style="list-style-type: none"> <input type="radio"/> Very appropriate <input type="radio"/> Somewhat appropriate <input type="radio"/> Somewhat inappropriate <input type="radio"/> Very inappropriate 	Not asked
Effort	<p>How much effort did you put into answering the American Community Survey? Would you say no effort to a little bit of effort, a moderate amount of effort, or a lot of effort?</p> <ul style="list-style-type: none"> <input type="radio"/> No effort to a little bit of effort <input type="radio"/> A moderate amount of effort <input type="radio"/> A lot of effort 	<p>How much effort did it take to answer the American Community Survey? Would you say no effort, a little bit of effort, a moderate amount of effort, or a lot of effort?</p> <ul style="list-style-type: none"> <input type="radio"/> No effort <input type="radio"/> A little bit of effort <input type="radio"/> A moderate amount of effort <input type="radio"/> A lot of effort
Expectations of Length	<p>Do you feel that the time it took you to complete the American Community Survey was less than you expected, about what you expected, or more than you expected?</p> <ul style="list-style-type: none"> <input type="radio"/> Less than I expected <input type="radio"/> About what I expected <input type="radio"/> More than I expected 	Not asked
Question Difficulty	<p>How easy or difficult was it to answer the American Community Survey questions? Would you say very easy, somewhat easy, somewhat difficult, or very difficult?</p> <ul style="list-style-type: none"> <input type="radio"/> Very easy <input type="radio"/> Somewhat easy <input type="radio"/> Somewhat difficult <input type="radio"/> Very difficult 	Not asked

Privacy	Would you say that the American Community Survey invades or respects your privacy? <ul style="list-style-type: none"> ○ Invades my privacy (SKIP TO 7A) ○ Respects my privacy (SKIP TO 7B) 	Would you say that the American Community Survey invades, or does not invade your privacy? <ul style="list-style-type: none"> ○ Invades my privacy (GO TO 7A) ○ Does not invade my privacy (END)
Privacy – Invasive Follow-Up	Would you say it is very invasive, or somewhat invasive? <ul style="list-style-type: none"> ○ Very invasive ○ Somewhat invasive 	Would you say it is a little invasive, somewhat invasive, or very invasive? <ul style="list-style-type: none"> ○ A little invasive ○ Somewhat invasive ○ Very invasive
Privacy – Respectful Follow-up	Would you say it is very respectful, or somewhat respectful? <ul style="list-style-type: none"> ○ Very respectful ○ Somewhat respectful 	Not asked